

CITY MULTI

CM10TH-B

Air conditioning is an ideal way of controlling the temperature, movement and cleanliness of air inside any building, large or small. With today's buildings being so well insulated and increasingly full of electronic equipment, the need for effective climate control is greater than ever. Not only does it cool in the summer months, but air conditioning can also heat, doing away with the need for separate heating systems altogether. More and more people today are enjoying the benefits of comfortable working and living environments made possible with air conditioning.

Our Latest Technologies

VRF system

VRF stands for Variable Refrigerant Flow. A VRF air conditioning system modulates the flow of refrigerant depending upon the capacity requirements of the building. In its simplest form, a VRF system comprises an air-cooled outdoor unit and a series of indoor units that regulate the air temperature inside an internal space.

Inverter driven technology

At Mitsubishi Electric we strive to continually meet the increasing demands of our customers, being the first in the industry to offer highly advanced 'inverter driven' systems. Using inverter technology our systems produce just the right amount of output to match the exact requirement of any building. These systems work so efficiently that they don't waste valuable energy by over-heating or over-cooling, resulting in greatly reduced running costs. Alternative systems that may appear cheaper, can often cost substantially more to run, making us the most cost effective choice all round.

Intelligent Power Module (IPM) technology

The CITY MULTI range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology, highly efficient operation is possible with compact units closely matching building requirements.

R410A refrigerant

As scientific evidence points to man-made chemicals for the damage caused to the ozone layer, we only use chlorine-free refrigerants that are safe with zero ODP (Ozone Depletion Potential). Accordingly, our systems require less energy to run, and have a significantly lower indirect global warming potential. In short, we produce the most efficient equipment possible, while helping to protect the environment.

Unsurpassed air conditioning from Mitsubishi Electric

Known the world over, the name Mitsubishi is a trusted household name associated with a variety of products and services. Founded in 1920, the company known today as Mitsubishi Electric, quickly rose to the forefront of the air conditioning industry - a position we still enjoy today. We pride ourselves on offering some of the most energy efficient systems available on the market.

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Sophisticated yet simple technology

Reliable

Designed and manufactured to the highest standards, the CITY MULTI range offers one of the most reliable air conditioning systems available. Simple to install and easy to maintain, this range provides ideal solutions you can trust to protect your investment.



PEFY-VMS1



PLFY-VBM

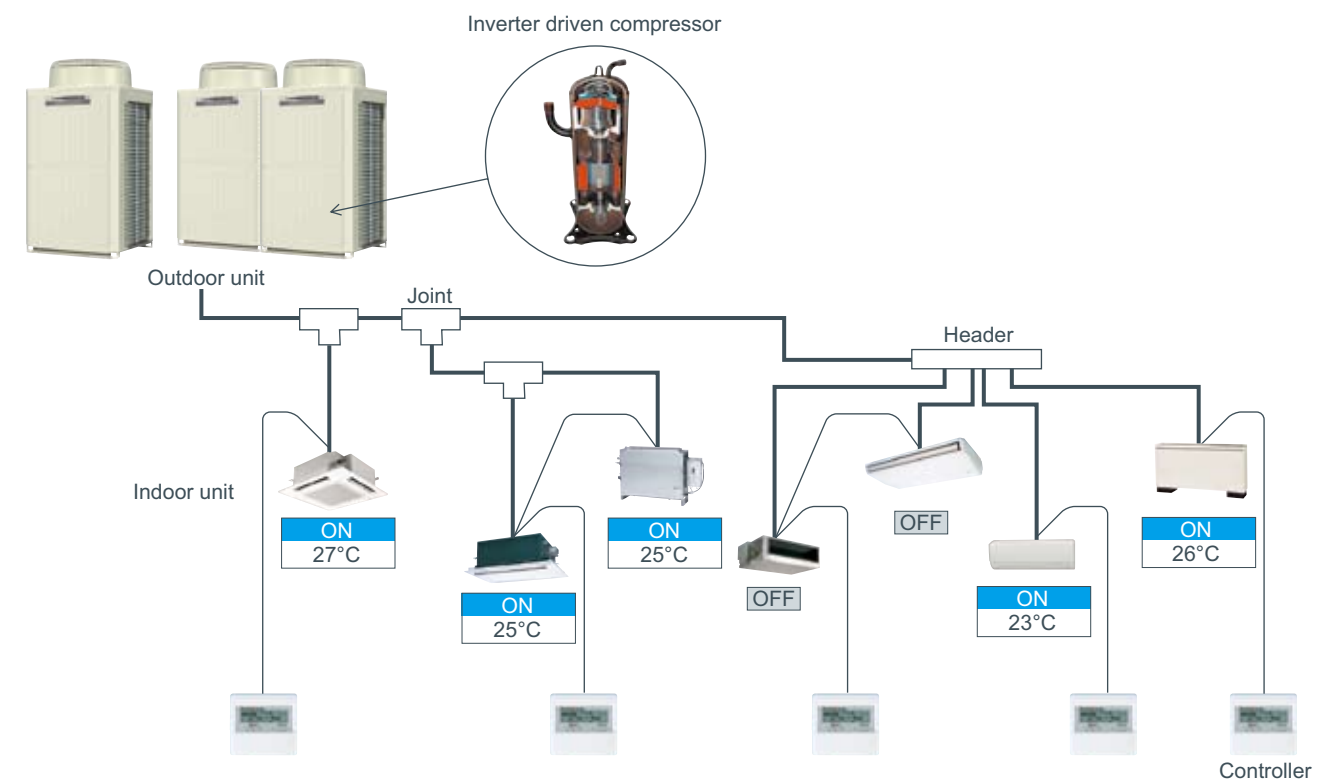
>All the CITY MULTI outdoor units are made in Japan under stringent control.

VRF system

Our answer to VRF

Mitsubishi Electric sets the boundaries of VRF technology with the CITY MULTI range, which is available using R410A refrigerant with zero ODP (Ozone Depletion Potential). The range has been specifically designed for today's building requirements and addresses key market issues such as energy efficiency, adaptability and reliability. With user friendly control systems utilizing Internet technology and integrated cooling and ventilation indoor units, CITY MULTI is the benchmark and market leader in VRF technology.

VRF is a multi and direct expansion type air conditioning system where by one outdoor unit can be connected with multiples indoor units. The amount of refrigerant can be regulated freely according to the load on the indoor unit by the inverter driven compressor in the outdoor unit. Zoning in a small office is possible with a small capacity indoor unit. Energy conservation is easily handled because individual indoor units can stop and start their operation as needed. There are various indoor units available in order to suit various interior design needs.

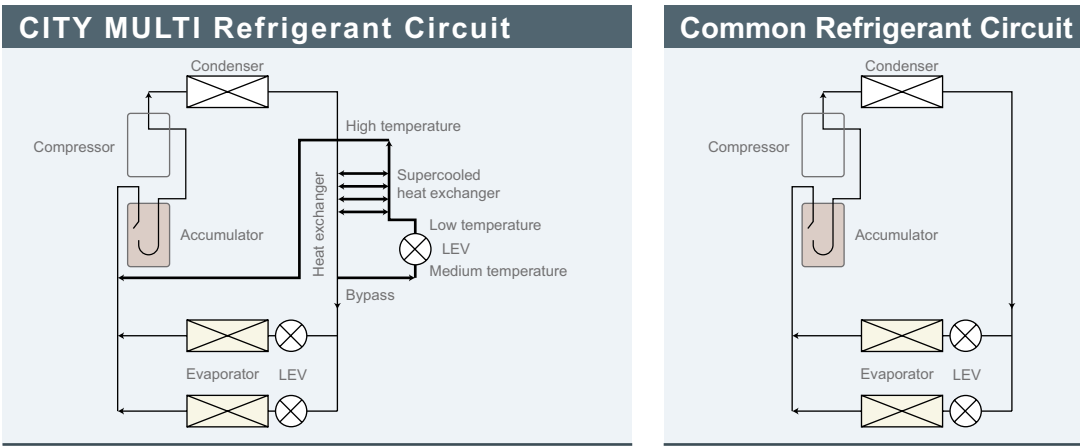




Unbeatable Efficiency

Heat Interchange Circuit

The unique Heat Interchange Circuit (HIC) enhances efficiency by providing additional sub-cooling and allows the expansion device to effectively control the refrigerant distribution, thereby increasing the operating efficiency and reducing the volume of refrigerant in each system.



Inverter Driven Compressor Technology - now up to 50HP

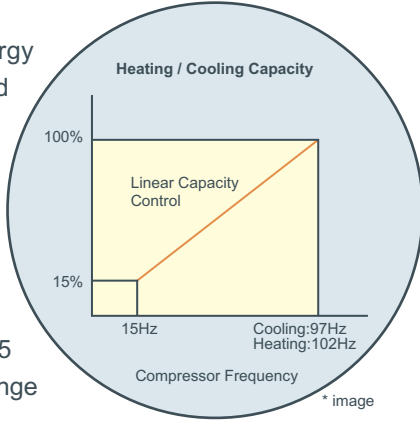


Low Starting Currents

Using inverter driven technology saves energy for several reasons:

The compressor varies its speed to match the indoor cooling or heating demand and therefore only consumes the energy that is required.

When an inverter driven system is operating at partial load, the energy efficiency of the system is significantly higher than that of a standard fixed speed, non inverter system. The fixed speed system can only operate at 100%, however, partial load conditions prevail for the majority of the time. Therefore fixed speed systems cannot match the annual efficiencies of inverter driven systems.



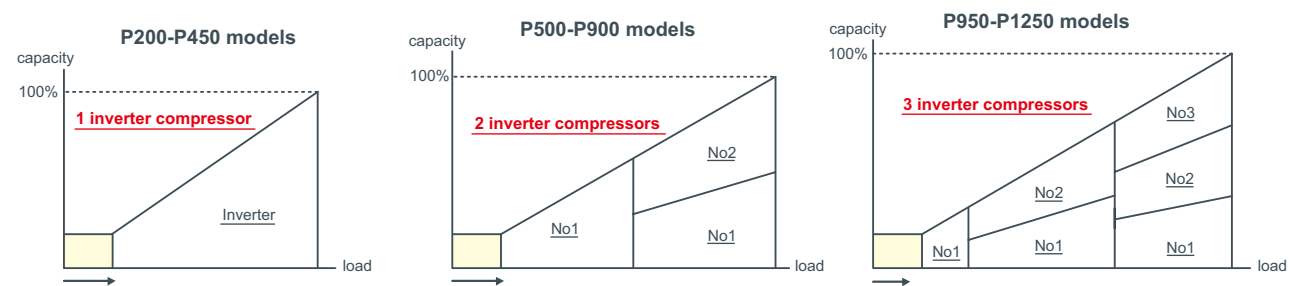
Using proven single inverter driven compressor technology, the CITY MULTI range is favored by the industry for low starting currents (only 15 amps for a 16HP THM-A outdoor unit), and smooth transition across the range of compressor frequencies.

All CITY MULTI compressors are inverter-driven type.
-Capable of precisely matching a building's cooling and heating demands.

The outdoor unit combinations comprise 1unit for P200-P450 models, 2 units for P500-P900 models systems and 3 units for P950-P1250 models. Each unit carries one inverter compressor making simple and highly reliable control possible.

Not only does it allow low starting currents, the inverter-driven compressor also provides precise indoor comfort and adapts to the air conditioning load.

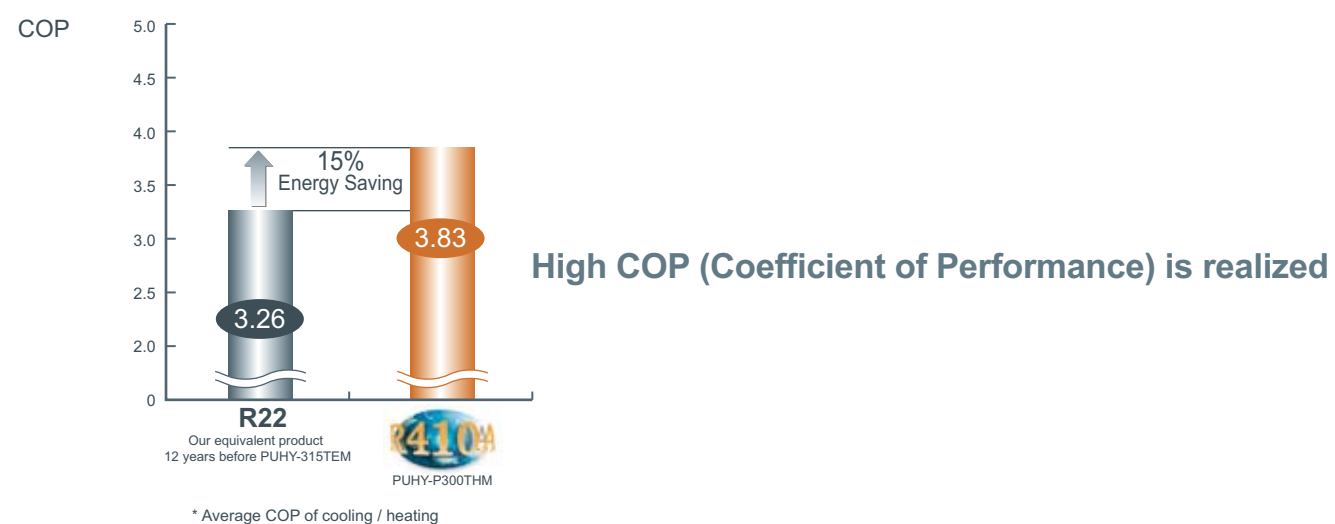
Stable and smooth operation





Total Energy Conservation

Comparison of COP (energy efficiency)



Intelligent Power Module (IPM) Technology

The THM-A range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology it is possible to closely match the building requirements, achieving more accurate control of the occupied space. By using incremental 1Hz steps of capacity control, the amount of power input required is significantly reduced, resulting in greatly improved COP's.

In addition, IPM technology ensures effective performance under partial load conditions, a condition that most systems will be in for the majority of the normal working life cycle. By taking account the efficiency at both part load, and peak load conditions, R410A CITY MULTI is designed to provide unbeatable year round/seasonal efficiency.

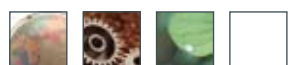
The difference between THM-A and previous Mitsubishi Electric models

Technology is key when increased efficiency is demanded.
The CITY MULTI THM-A range is able to deliver this in simple ways.

A highly efficient R410A scroll compressor design results in less friction losses at the motor. A simplified refrigerant circuit (low pressure loss) including a new accumulator design also adds a few more points to the efficiency scale. Enhancements to the heat interchange circuit, an inverter driven fan motor and a heat exchanger design again add vital increases to overall system efficiencies and COPs.

The importance of COP

COP stands for "Coefficient of Performance". It is a measure of the useful energy a system can deliver compared to the energy it consumes. It is calculated by dividing the energy output by the energy input of a system. The higher the figure then the more efficient the system is deemed to be. Mitsubishi Electric VRF models, the world's highest energy-efficient air-conditioners, will undoubtedly reduce millions of tons of CO₂ emissions.





For the Environment

Enhancing environmental care (measures for the RoHS Directive and the refrigerant reduction)

Every unit is in compliance with the RoHS Directive,* which stands for the Restriction of Hazardous Substances: Lead-free soldering is used to avoid Lead Groundwater Contamination on the print board. The amount of refrigerant on the unit has also been reduced to enhance environmental care.

* RoHS Directive: the restriction of the use of certain hazardous substances in electrical and electronic equipment that has been sold in EU since July 2006

Efficient R410A refrigerant



History of refrigerant

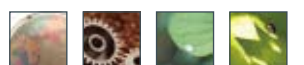
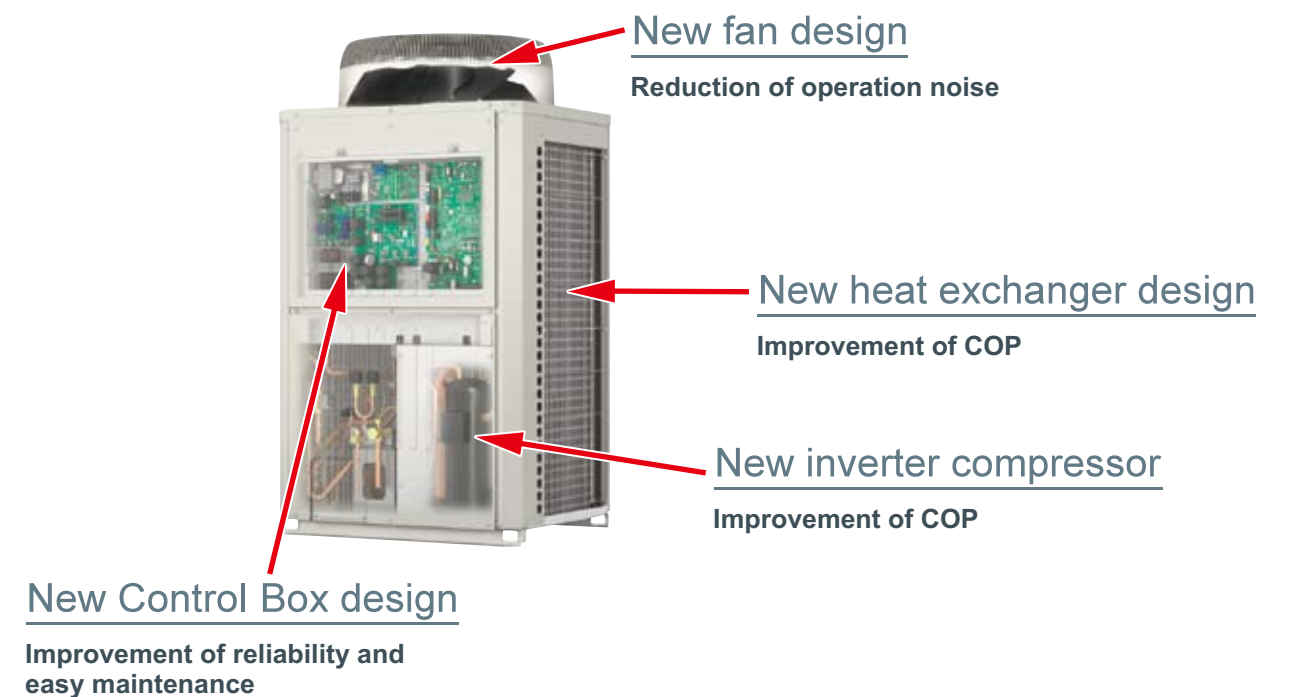
R22, an HCFC-based refrigerant, has been a popular choice for most chillers. R22 has been targeted by the Montreal Protocol to be phased out in new equipment. Additionally, governments in many countries are enforcing a ban of HCFC-based refrigerants for new installations.

Because of these restrictions, R410A refrigerants are desirable. R410A is a blend of HFCs, which do not deplete the ozone.

Technical aspects of refrigerant

R410A is a more efficient refrigerant as it has a higher specific heat capacity when compared to R407C or R22. This higher energy carrying capacity allows for smaller pipe sizes, longer pipe runs and reduces the volume of refrigerant within a system. This is a major factor when concerning safety and environmental requirements in the design, manufacture, installation, operation, maintenance and disposal of refrigerating systems.

New Design





Remote Controller

Individual Remote Controller

Centralized Remote Controller

The importance of control

The need for control is paramount in order to optimise the performance of any air conditioning system and minimize its running costs. Mitsubishi Electric offers a wide range of control options designed to meet such needs.

Operating an air conditioning system without the right control can prove costly. It's therefore important to ensure that every system is correctly specified to the degree of control it requires. Mitsubishi Electric have a wide range of controls available 'off-the-shelf' and individual control systems can be specifically designed to match.

Good controls will benefit any application, large or small. Air conditioning products need to react to a variety of factors: different room sizes, usage and staff levels; changes in the climate; electronic equipment and lighting ...the list goes on. So whatever the application, optimum control of air conditioning systems is essential and will result in a constant, comfortable environment, which in turn is both energy and cost efficient.

A degree of difference

When an air conditioning system is not properly controlled, it will not run as efficiently as it should. For every degree that the system deviates from the required temperature, energy costs can rise by up to 5%. Specify one of the many control options from Mitsubishi Electric to ensure air conditioning works as intended, whilst giving the optimum amount of control.

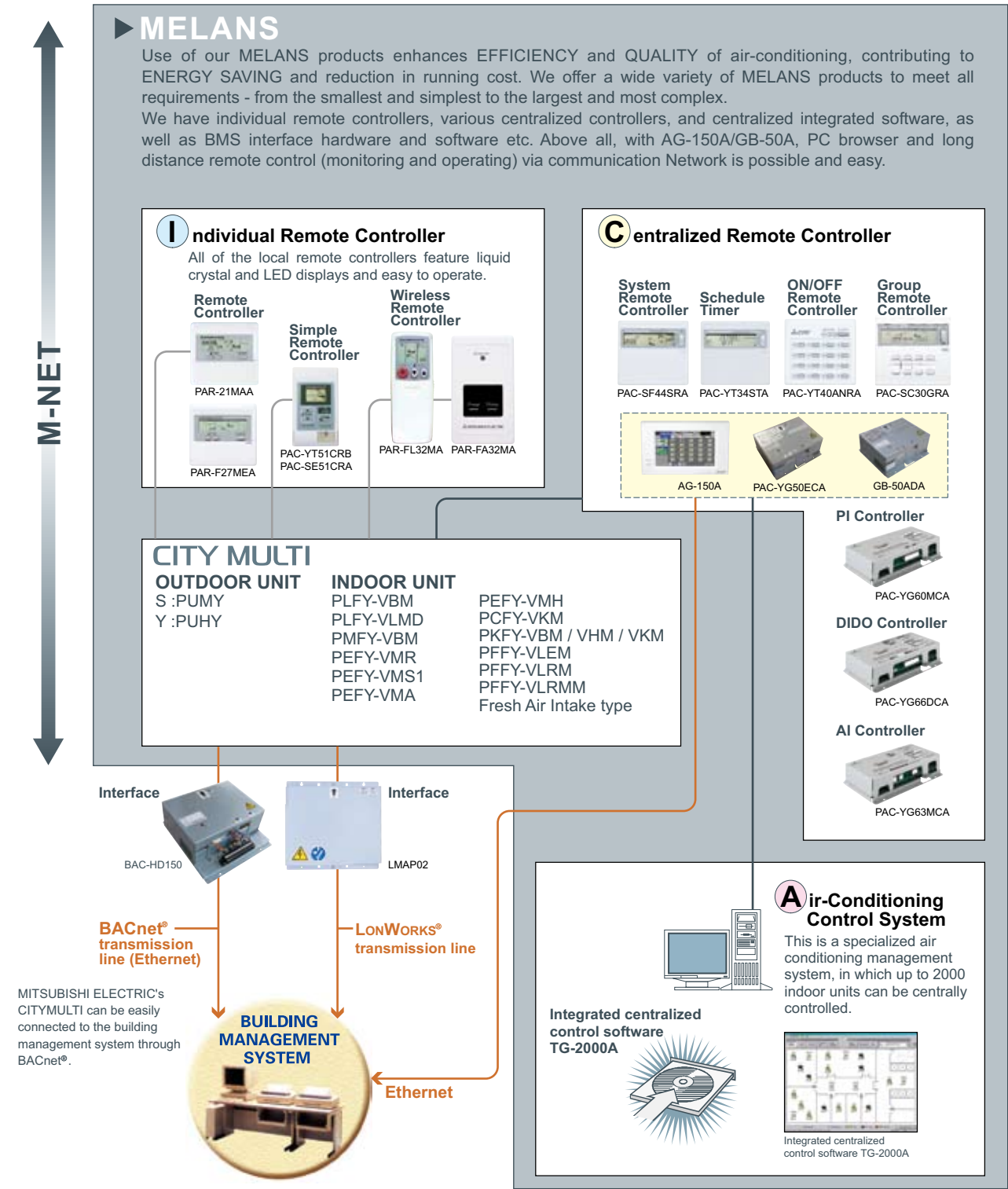
The simpler, the better

With the array of comprehensive control systems available from Mitsubishi Electric, it becomes simple to design and install air conditioning systems. From a simple hand-held controller to a AG-150A system - you are in control.



System Controller

MITSUBISHI ELECTRIC's Air-conditioner Network System (MELANS) leads air conditioner management a PC browser and Network era.



Integrated Communications Control with Mitsubishi's Unique Transmission Network (M-NET)

Model	Local remote controller					System controller										*10	
	PAR-21MAA	PAR-F27MEA	PAC-YT51CRB	PAC-SE51CRA	PAR-FL32MA	PAC-YT40ANRA	PAC-SC30GRA	PAC-SF44SRA	PAC-YT34STA	AG-150A	AG-150A+ PAC-YG50ECA	GB-50ADA	TG-2000A*5*11				
Controllable Groups/Indoors (Group / Indoor)	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	16 / 50	8 / 16	50 / 50	50 / 50	50 / 50	50 / 50	50 / 50	2000 / 2000				
■ Operating																	
ON/OFF	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Mode (cool/heat/dry/fan)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Temperature-set	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Local Permit/Prohibit	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Fan speed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Air-flow direction	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
■ Status monitoring																	
ON/OFF	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Mode (cool/heat/dry/fan)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Temperature-set	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Local Permit / Prohibit	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Fan speed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Air-flow direction	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Indoor temperature	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Filter sign	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Error flashing	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Error code	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Operation hour	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
■ Scheduling																	
One-day	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Times of ON/OFF per day	8	1/1	N	N	1/1	N	N	N	N	16	24	24	24	24	24	12 or 24	12 or 24
Weekly	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Times of ON/OFF per week	8x7	N	N	N	N	N	N	N	N	16x7	24x7	24x7	24x7	24x7	24x7	12x7 or 24x7	12x7 or 24x7
Annual	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Optimized start-up	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Auto-off timer	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Min. timer setting unit (minute)	1	10	N	N	10	N	N	N	N	5	1	1	1	1	N	1	1
■ Recording																	
Error record	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Daily/monthly report	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
■ Other																	
Temp-set limitation by Local R/C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Temp-set limitation by System controller*4	○*6	○	○*6	○*7	○	○	○	○	○	○	○*2*6	○	○*2*6	○	○*2*6	○	○*6
Auto-lock	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Night setback	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sliding temperature control	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
■ Management (Group/Interlocked)																	
Ventilation interlock	N/O	N/O	N/O	N/O	N	○	N/O	○	○	○	○/○*2	○	○/○*2	N	○/○*2	○/○	○/○
Group setting	○*1	○	○*1	○	N	○	○	○	○	○	○*2	○	○*2	N	○*2	○	○
Block setting	N	N	N	N	N	N	N	N	N	○	○*2	N	○*2	N	○*2	○	○
Revision of electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
■ Operating on LOSSNAY interlocked (Group/Interlocked)																	
ON/OFF	N/O	N/O	N/O	N/O*8	N/O	◎/◎*3	N/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎
Fan speed	N/O	N	N	N	N	N	N/O	◎/◎	◎/◎	N	◎/◎	◎/◎	◎/◎	N/N	◎/◎	◎/◎	◎/◎
Ventilation mode	N/N	N	N	N	N	N	N	◎/◎	◎/◎	N	◎/◎	◎/◎	◎/◎	N/N	◎/◎	◎/◎	◎/◎
■ Status monitoring on LOSSNAY interlocked (Group/Interlocked)																	
ON/OFF	N/O	N	N	N	N	N	N/O	○/○	○/○	○/○	○/○	○/○	○/○	○/○	○/○	○/○	○/○
Fan speed	N/O	N	N	N	N	N	N/O	○/○	○/○	N	○/○	○/○	○/○	N/N	○/○	○/○	○/○
Ventilation mode	N	N	N	N	N	N	N	○/○	○/○	N	○/○	○/○	○/○	N/N	○/○	○/○	○/○

◎: Each group / Batched; ○: Each group; □: Block (for CITY MULTI Indoor unit, not for all Mr.SLIM);
●: AG-150A / GB-50ADA license registration possible. (●): License registration for the optional functions required N: Not Available (Not Used).
△: Batched only; ▲: Batched handling (for maintenance) ■: Block

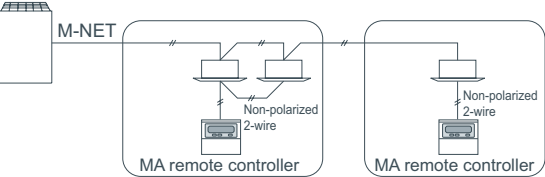
*1. Group setting via wiring between Indoor units with cross-over cable;
*2. Installation possible at Initial setting web browser;
*3. Inter-lock is set at Local remote controller.
*4. AG-150A/GB-50ADA license registration to AG-150A/GB-50ADA is required to monitor and operate the units by browser and TG-2000A.
5. AG-150A connected with PAC-YG50ECA is compatible with TG-2000A Ver.6.1 or later.
*6. This function can be set only on the ME/Simple MA remote controller. This function cannot be used with the MA/Simple MA remote controller.
(But, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and there are possibilities that this function can be used with them.)
*7. This function is available only when applying together with TG-2000A, AG-150A and GB-50ADA.
*8. Inter-lock is set from system controller. (Except PAC-YT40ANRA)
*9. The maximum number of controllable units decreases depending on the indoor unit model.
*10. For indoor use only.
11. It is planned that GB-50ADA will be supported on TG-2000A Ver. 6.3 or later.

Individual Remote Controller

Wired MA remote controller PAR-21MAA

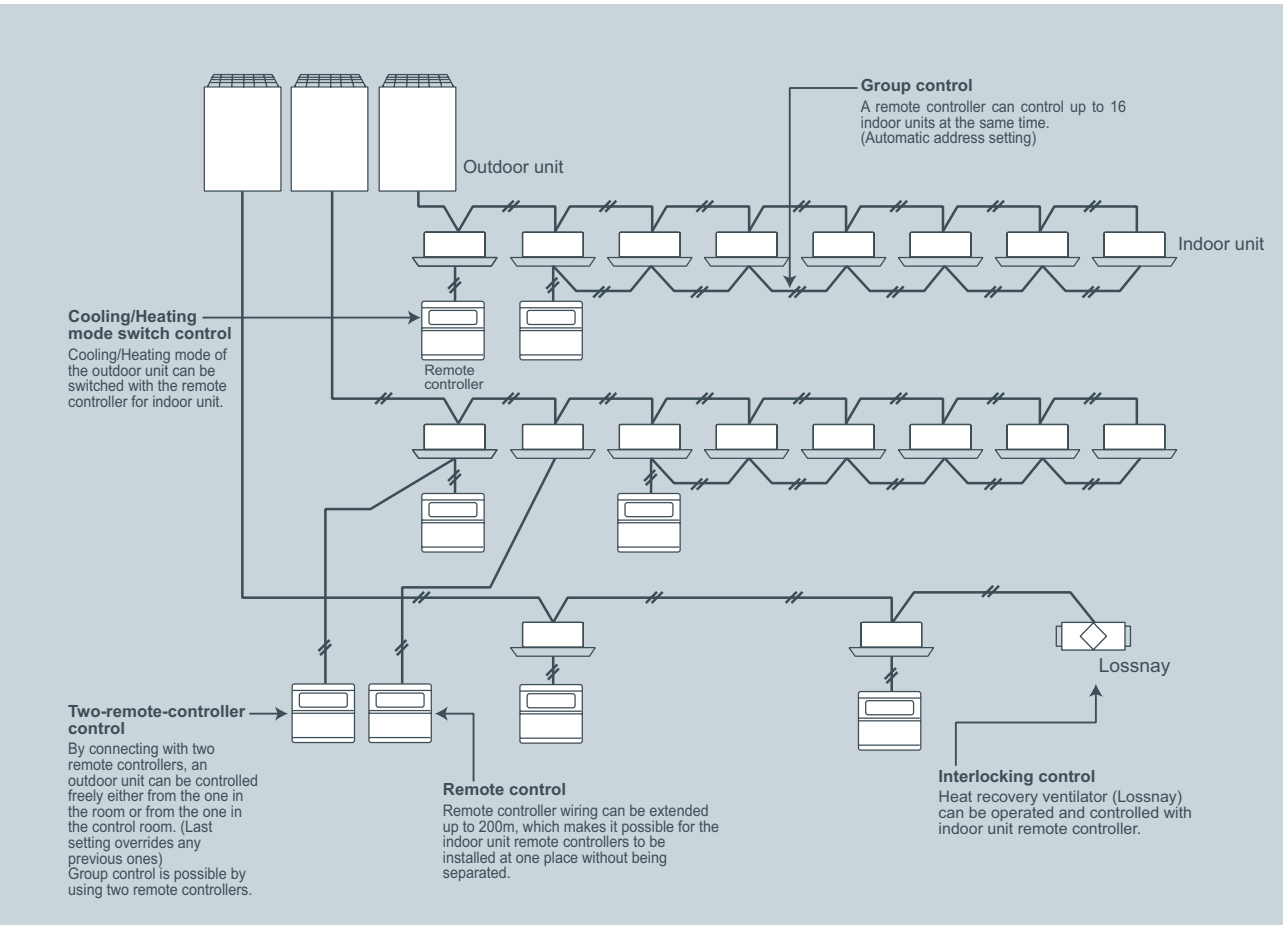


Example of system configuration



- Dot matrix liquid crystal screen displays complete operating status.
- Digital display lets you set temperature in 1°C/°F increments.
- Weekly Timer: up to 8 ON/OFF/Temperature Settings can be made per day. The time can be set in 1-minute increments. The setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- Equipped with a thermostat sensor in the remote controller that makes possible more comfortable room temperature control.
- Ability to limit the set temperature (upper and lower temperature can be set.)
- Ability to restrict setting changes (either all changes or all except ON/OFF)
- Constantly monitors for malfunctions in the system, and is equipped with a “self-diagnosis function” that lets you know by error code immediately when a malfunction occurs.
- Dimensions: 130(W) x 120(H) x 19(D) mm : 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

■ Various control systems can be offered with indoor unit remote controller.



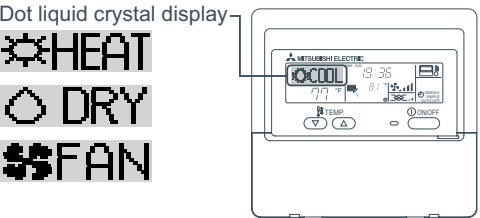
New display-Larger,easier-to-see characters

Various information is displayed and conveyed clearly, enabling more accurate operation of the air conditioner.

Dot Liquid Crystal Display (LCD)

The dot liquid crystal display enables quick understanding of the operation state.

- Display example [Operation mode]



Multi-language Display

In addition to English, contents can be displayed in seven other languages.

- Display example [Cool mode]



Multi Language Display Example

[Dot display table]

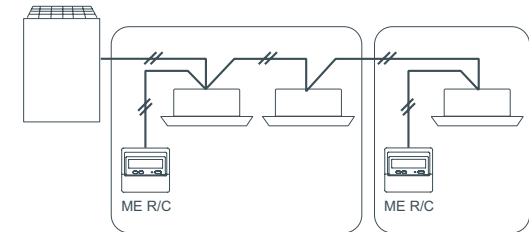
Language		English	German	Spanish	Russian	Italian	Chinese	French	Japanese
Waiting for start-up		PLEASE WAIT	←	←	←	←	←	←	←
Operation mode	Cool	COOL	Kühlen	FRÍO	Холод	COOL	制冷	FROID	冷房
	Dry	DRY	Trocknen	DESHUMIDIFICACIÓN	Сушка	DRY	除湿	ODESHU	ドライ
	Heat	HEAT	Heizen	CALOR	Тепло	HEAT	制热	CHAUD	暖房
	Auto	AUTO	AUTO	OTOPLENIE	Авто	AUTO	自动	AUTO	自動
	Auto(Cool)	COOL	Kühlen	FRÍO	Холод	COOL	制冷	FROID	冷房
	Auto(Heat)	HEAT	Heizen	CALOR	Тепло	HEAT	制热	CHAUD	暖房
	Fan	FAN	Lüfter	VENTILACIÓN	Вент	VENTILAZIONE	送风	VENTILATION	送風
	Ventilation	VENTILATION	Cellulose	VENTILACIÓN	ВЕНТИЛЯЦИЯ	SPRINTA	换气	VENTILATION	换气
	Stand by (Hot adjust)	STAND BY	STAND BY	CALENTANDO	ОТОПКА	STAND BY	准备中	CHAUFFAGE	準備中
	Defrost	DEFROST	Auftauen	DESCONGELACIÓN	ОТТАИВАНИЕ	SPRINTAMENTO	除霜中	DEGIVRAGE	霜取中
Not use button		NOT AVAILABLE	Nicht Verfübar	NO DISPONIBLE	НЕ ДОСТУПНО	NON DISPONIBILE	无效按钮	NON DISPONIBILE	無効ボタン
Check (Error)		CHECK	Prüfen	COMPROBAR	ПРОВЕРКА	CHECK	检查	CONTROLE	点検
Test run		TEST RUN	Testbetrieb	TEST FUNCIONAMIENTO	ТЕСТОВЫЙ ЗАПУСК	TEST RUN	试运行	TEST	试运行
Self check		SELF CHECK	Selbst-diagnose	AUTO REVISIÓN	САМОАНАЛИЗ	SELF CHECK	自我诊断	AUTO CONTROLE	自己診断
Unit function selection		FUNCTION SELECTION	Funktion Auswahl	SELECCIÓN DE FUNCIÓN	ВЫБОР ФУНКЦИИ	SELEZIONE FUNZIONI	功能选择	SELECTION FONCTIONS	機能選択
Setting of ventilation		SETTING OF VENTILATION	Lüftestufen wählen	CONFIG. VENTILACIÓN	НАСТРОЙКА ВЕНТИЛЯЦИИ	IMPOSTAZIONE ARIA ESTERNA	换气设定	SELECTION VENTILATION	换气設定

Individual Remote Controller

Wired ME remote controller PAR-F27MEA

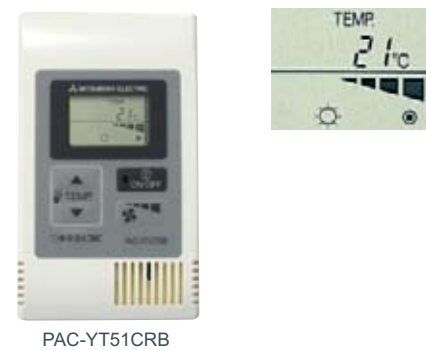


Example of system configuration

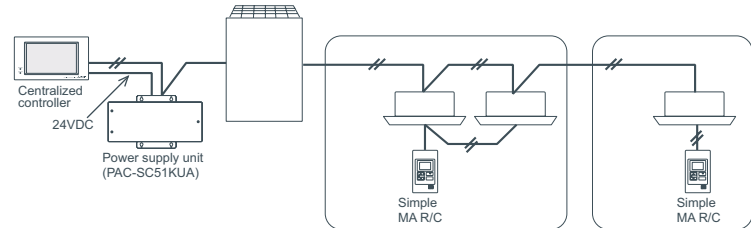


- This remote control requires non-polar wiring to only one indoor unit.
- Group operation over multiple outdoor units is possible. Grouping can be changed without re-wiring, which makes dividing rooms for tenants easier.
- **Timer operation**
 - *Daily timer operation of one ON/OFF setting everyday
 - *Auto-off timer : 0:30, 1:00, 1:30, 2:00...4:00
 - *The setting is kept in nonvolatile memory.
- **Function lock**
 - All functions or all functions except ON / OFF can be selected.
- **Set temperature range limit**
- **Interlock setting and operation of LOSSNAY**
- Dimensions:130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.
- **LCD temperature setting and display in 1°C increments.**

Simple remote controller PAC-YT51CRB (MA)



Example of system configuration

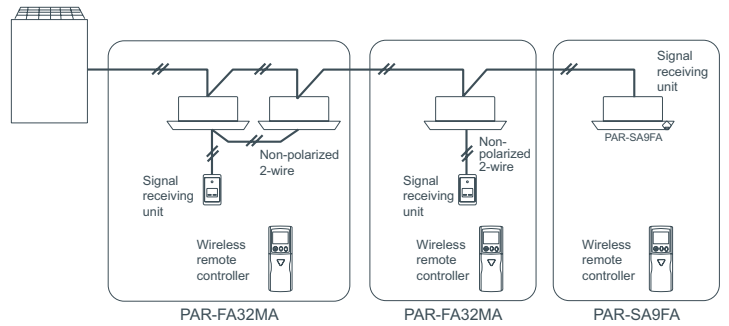


- **Control: START/STOP, room temperature, fan speed, and operation mode**
- The only wiring required is cross-over wiring based on two-wire signal lines.
- Room temperature sensors are built-in.
- LCD temperature setting and display in 1°C /1°F increments.
- **Set temperature range limit**
- **Can operate all types of indoor units**
 - *Since this controller has limited functions, it should always be used in conjunction with standard controller or centralized controller.
- Dimensions:70(W) x 120(H) x 41(D) mm
:2-3/4(W) x 4-23/32(H) x 1-5/8(D) in.

Wireless remote controller PAR-FL32MA / PAR-FA32MA



Example of system configuration



- No need to configure addresses for group operation.
- Lit LED keeps you informed of operation - blinking even gives you the error code via the number of blinks.
- Can be used with the MA remote controller.
 - *When used in group configurations, wiring between indoor units is required.
 - *Combining ME remote controller and/or LOSSNAY remote controller in a group is not possible.
- LCD temperature setting and display in 1°C /1°F increments.
- Dimensions:58(W) x 159(H) x 19(D) mm
:2.28(W) x 6.26(H) x 0.75(D) in.

Correspondence table

	receiver	transmitter
PMFY-P VBM	PAR-FA32MA	PAR-FL32 MA-E
PLFY-P VLMD		
PCFY-P VKM		
PEFY-P VMR-E-L/R/ VMH/VMS1		
PFFY-P VLEM/VLRM/VLRMM		
PEFY-P VMA(L)		
PLFY-P VBM-E	PAR-SA9FA-E	
PKFY-P VHM/VKM	Built-in	
PKFY-P VBM-E		

Centralized Remote Controller

One system controller can control up to fifty indoor units from one location. The PAC-SF44SRA also has hardwired connection available (On/Off input, fire alarm input, run output, fault output).

System remote controller PAC-SF44SRA

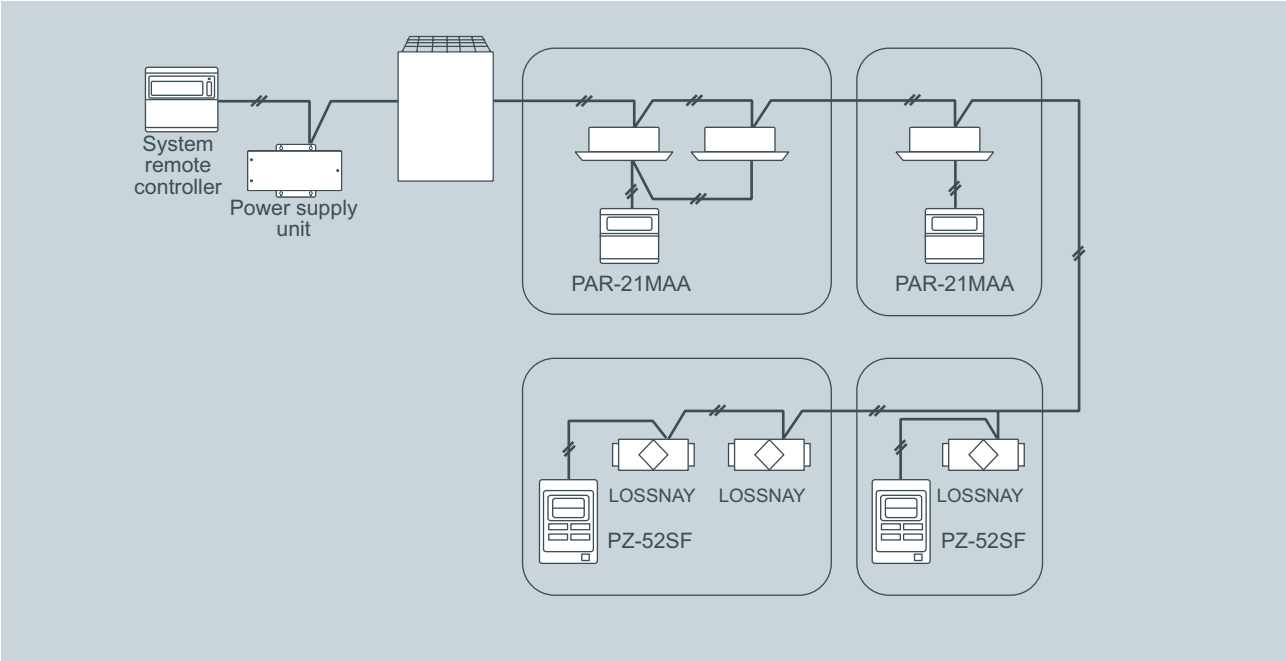


- The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.

System Controller		
FUNCTION	DESCRIPTION	PAC-SF44SRA
UNITS	Max No.Units	50 units/50 group
		Operation Displays
ON/OFF	Run and stop operation	✓ ✓
MODE SELECTION	Switches between Cool/Dry/Auto/Fan/Heat. Operation Mode will vary depending on the indoor unit. Auto mode is available with only R2 and WR2 systems	✓ ✓
TEMPERATURE SETTING	Sets the groups temperature control. Values in parentheses are for the medium-temperature indoor unit. Cool/Dry: 19-30°C [14-30°F] / 67-87°F [57-87°F] Heat : 17-28°C [17-28°C] / 63-83°F [63-83°F] Auto : 19-28°C [17-28°C] / 67-83°F [63-83°F]	✓ ✓
FAN SPEED SETTINGS	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low Fan speed setting (including Auto) varies depending on the model.	✓ ✓
AIR FLOW DIRECTION SETTING	Air flow angles: 4-angle or 5-angle, Swing, Auto, Louver ON/OFF	✓ ✓
PERMIT/PROHIBIT FUNCTION	Run/Stop, Temperature Setting, Mode Selection and Filter Reset functions can be prohibited.	✓ ✓
ERROR INDICATION	Displays a 4 digit code and the affected unit address	✓
VENTILATION INTERLOCK	Allows the group to be interlocked with a heat recovery Lossnay unit	✓ ✓
EXTERNAL INPUT	On/Off/Fire Alarm	✓
EXTERNAL OUTPUT	On/Off/Faults	✓

• Dimensions: 130(W) x 120(H) x 19(D) mm
: 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

System example



Mitsubishi Electric controllers are complimented by a weekly programmable timer, being able to control up to fifty indoor units. The PAC-YT34STA also has hardwired connection available (On/Off input, fire alarm input, run output, fault output).

Schedule timer PAC-YT34STA

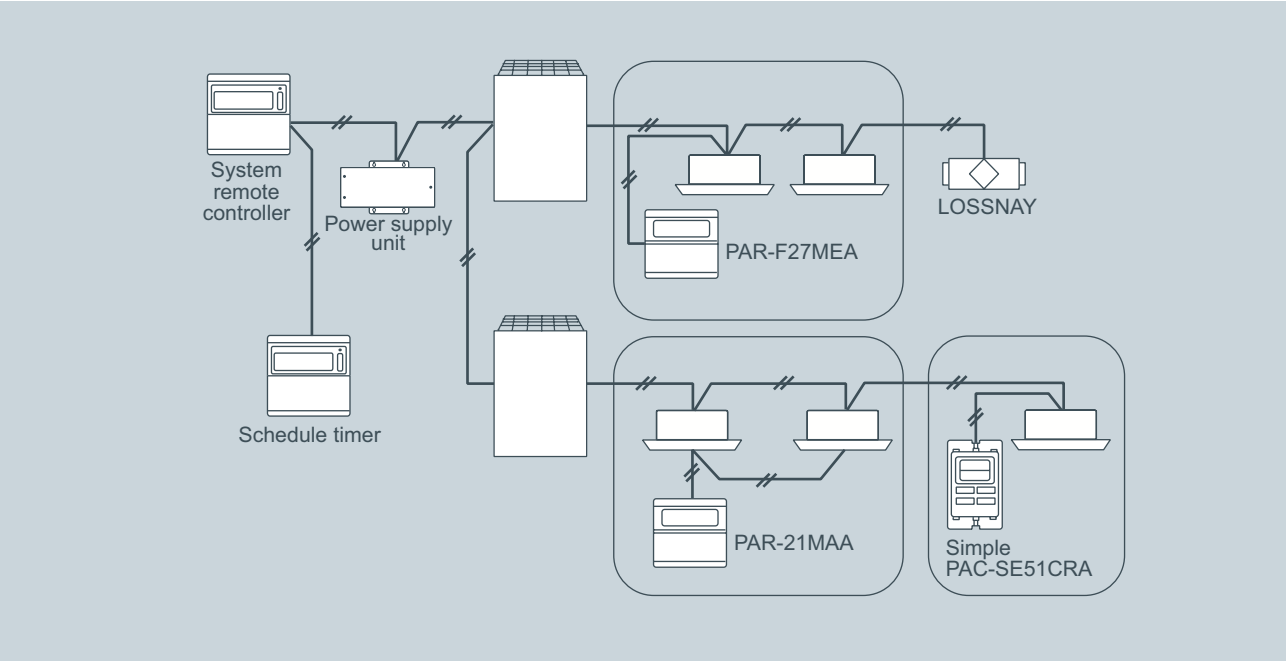


- The schedule group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.

Programmable Timer		
FUNCTION	DESCRIPTION	PAC-YT34STA
UNITS	Max No.Units	50 units/50 group
		Operation Displays
ON/OFF	Run and stop operation	✓ ✓
SCHEDULE FUNCTION	Content	On/Off Mode: Cool/Heat/Auto Set temperature: 19-28°C [67-83°F] Operation Prohibit: On/Off, Mode, Set temperature
	Number	Weekly timer for each group 9 setting patterns + no setting 16 operations per day
	Unit	5 minutes
CURRENT TIME	Set the time	✓ ✓
ERROR INDICATION	Displays a 4 digit code and the affected unit address	✓
EXTERNAL INPUT	On/Off/Fire Alarm	✓
EXTERNAL OUTPUT	On/Off/Faults	✓

• Dimensions: 130(W) x 120(H) x 19(D) mm
: 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

System example



Centralized Remote Controller

Just press a switch to start. All of the units can be On/Off by pressing the main switch, and each unit in the group can be On/Off with individual switch. The PAC-YT40ANRA also has hardwired connection available (On/Off input, fire alarm input, run output, fault output).

ON/OFF remote controller PAC-YT40ANRA

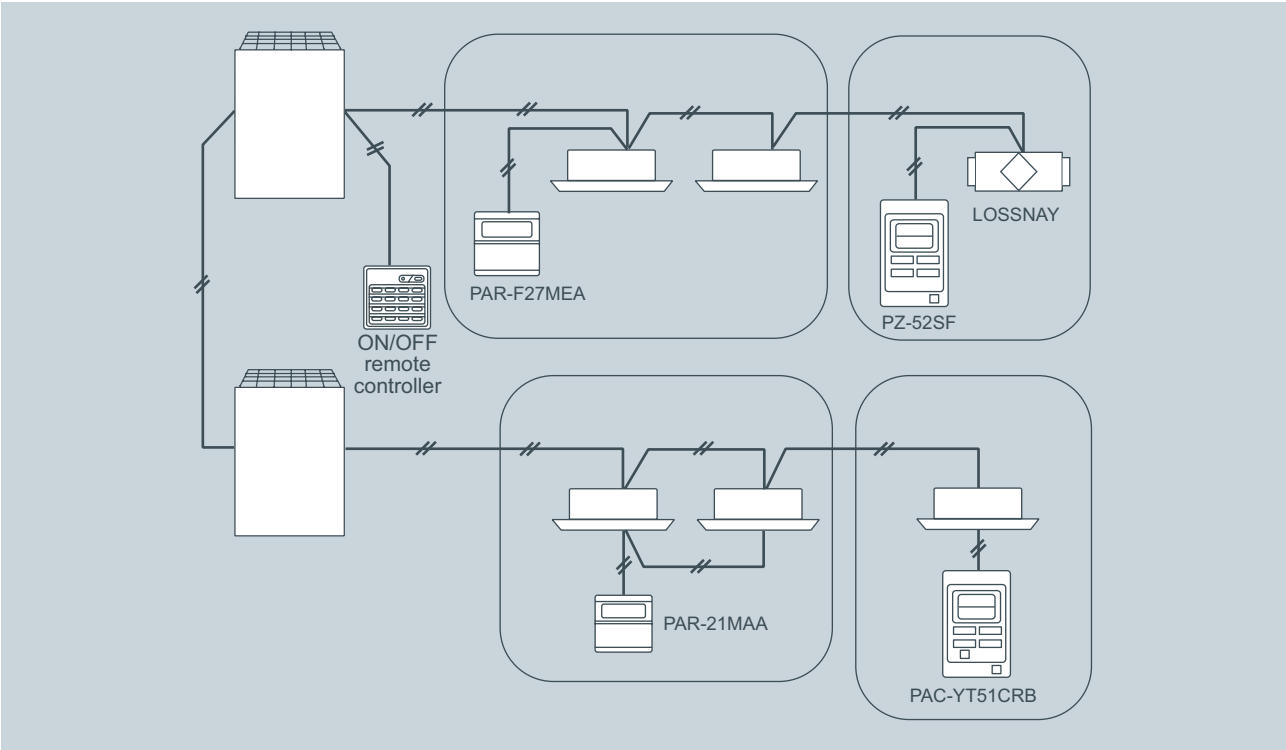


FUNCTION	DESCRIPTION	PAC-YT40ANRA	
UNITS	Max No.Units	50 units/16 groups	
		OPERATIONS	DISPLAY
ON/OFF	Run and stop operation	✓	✓
ERROR INDICATION	LED flashes during failure. (The error code can be confirmed by removing the cover.)	—	✓
VENTILATION OPERATION (INDEPENDENT)	Group operation of only LOSSNAY units possible. *Only ON/OFF of group.	✓	✓
VENTILATION OPERATION (INTERLOCKED)	The LOSSNAY will run in interlock with the operation of indoor unit. *The fan rate and mode cannot be changed. The LED will turn ON only during operation after interlocking.	✓	✓
EXTERNAL INPUT	On/Off/Fire Alarm	✓	
EXTERNAL OUTPUT	On/Off/Faults		✓

• Dimensions:130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

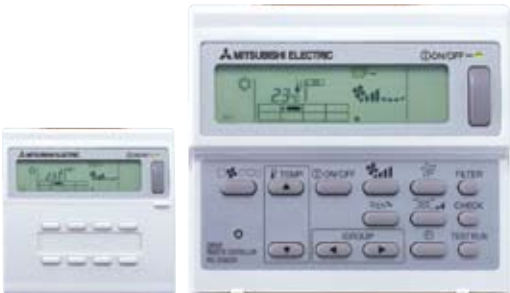
- The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.

System example



Up to 8 groups can be operated (maximum of 16 units). Just by pressing RAC-SC30GRA switches, groups can be started and stopped as a batch. Suitable for small office and residential project.

Group remote controller PAC-SC30GRA

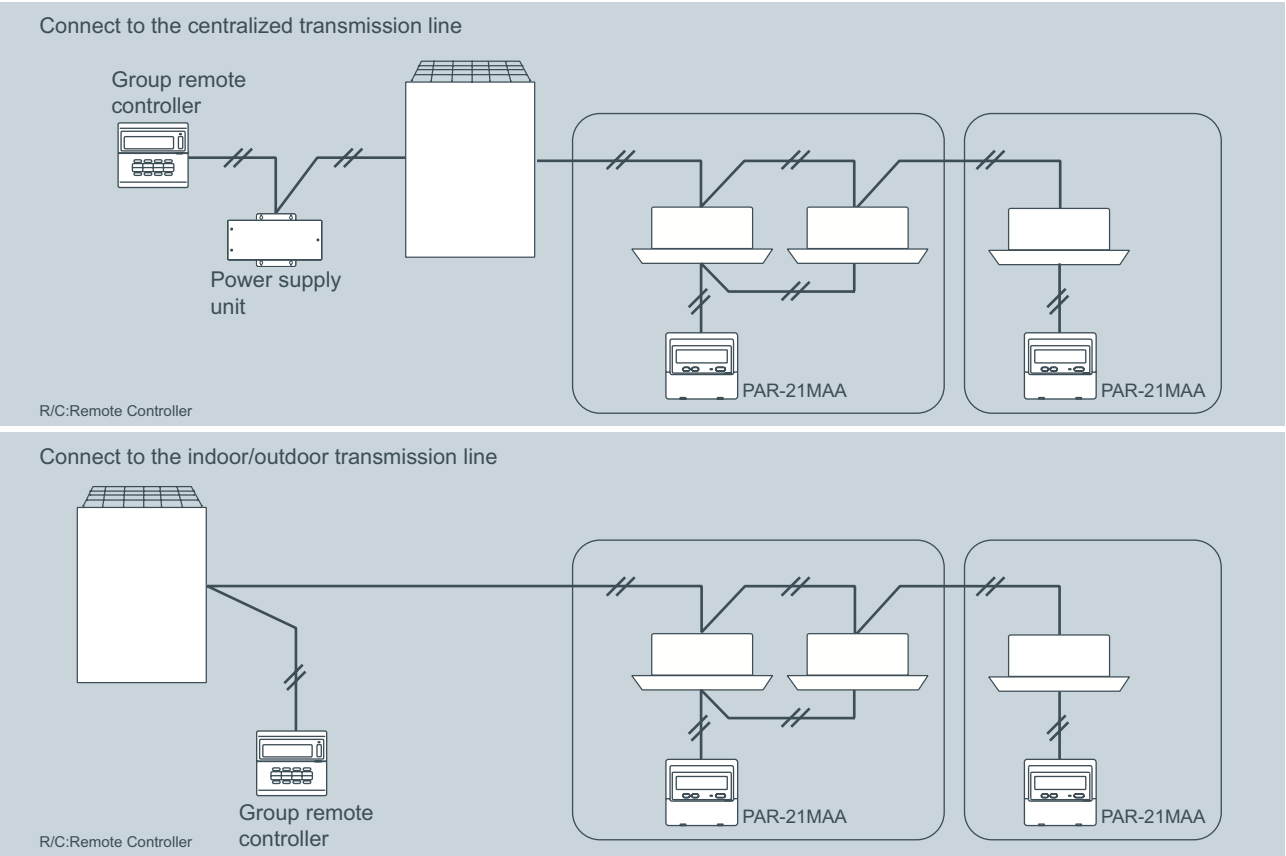


FUNCTION	DESCRIPTION	PAC-SC30GRA	
UNITS	Max No.Units	16 units / 8 groups	
		OPERATIONS	DISPLAY
ON/OFF	Run and stop operation	✓	✓
MODE SELECTION	Switches between Cool/Dry/Auto/Fan/Heat. Operation Mode will vary depending on the indoor unit. Auto mode is available with only R2 and WR2 systems	✓	✓
TEMPERATURE SETTING	Sets the groups temperature control. Cool/Dry:19-30°C Heat:17-28°C Auto:19-28°C	✓	✓
FAN SPEED SETTINGS	4 speed – Hi-Mid2-Mid1-Low, Auto 3 speed – Hi-Mid-Low, Auto 2 speed – Hi-Low	✓	✓
AIR FLOW DIRECTION SETTING	Air flow angles: 4-angle or 5-angle, Swing, Auto, Louver ON/OFF	✓	✓
PERMIT/PROHIBIT FUNCTION	Run/Stop, Temperature Setting, Mode Selection and Filter Reset functions can be prohibited via main system controller		✓
INDOOR RETURN AIR TEMPERATURE	Measures the intake temperature of the master unit within the group		✓
ERROR INDICATION	Displays a 4 digit code and the affected unit address		✓
VENTILATION INTERLOCK	Allows the group to be interlocked with a heat recovery Lossnay unit	✓	✓

• Dimensions:130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

- The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.

System example




Centralized Remote Controller

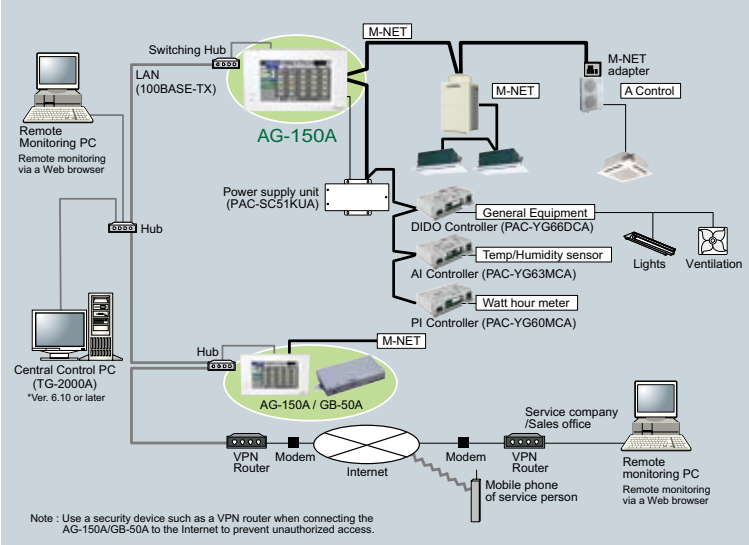
With a new colored touch panel, and continuation of all the G-50A functions, AG-150A visualizes its functions from basic control to advanced operations and bringing an ultimate controller to reality.

Centralized controller AG-150A

New


Option : Black surface cover PAC-YG71CBL


System structure



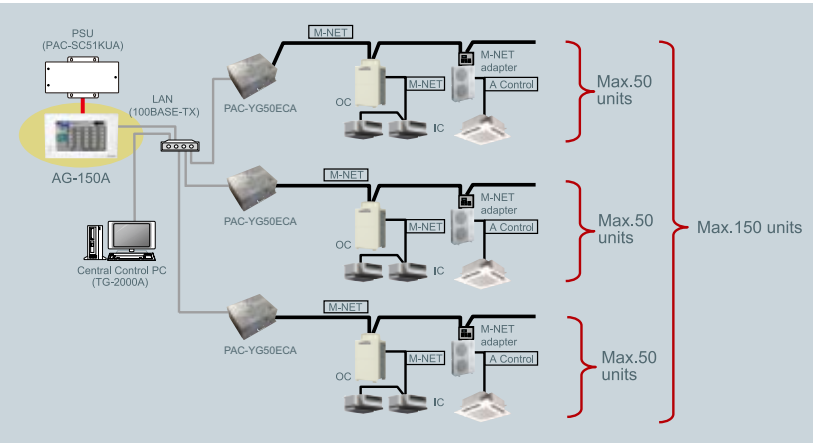
Note : Use a security device such as a VPN router when connecting the AG-150A/GB-50A to the Internet to prevent unauthorized access.

Expansion Controller PAC-YG50ECA

New


Dimensions: 250(W) x 217(H) x 97.2(D) mm
: 9-7/8(W) x 8-9/16(H) x 3-7/8(D) in.

System structure



Max. 50 units
Max. 50 units
Max. 50 units
Max. 150 units

*Do not connect PAC-YG50ECA to TB3 of the outdoor unit.

*Use a security device such as a VPN router when connecting the AG-150A etc. to the Internet to prevent unauthorized access.

New Design

Backlight Color liquid crystal

Backlight makes it easy to see and control units.
One can identify whether a unit is ON or OFF from a distance.
Control in the night with no lights is possible.

Touch panel

9 inch wide, high-resolution
Touch panel enables operation of units by touching with index finger.
When object unit is touched, orange box appears around the unit icon indicating the unit selected.

Flat Back

Easy installation
Allows for an installation of the unit either directly to the wall surface or using the installation hole in the wall.

USB memory compatible

All measurement/initial setting CSV data extractable with USB memory.
Can save and overwrite setting data.

New Functions

Controllable units/groups

Controls up to 50 units/groups (including indoor units, LOSSNAY, DIDO/AI/PI controller)
Up to 150 units can be controlled via expansion controller;PAC-YG50ECA (AG-150A software needs to be upgraded)

Monitoring functions

Temperature/Humidity (using AI controller with WEB browser) *1
General equipment such as lights on LCD (using DIDO controller)
Interlock function from AI controller, DIDO controller to indoor units and between DIDO units are available.
AG-150A interlock with DIDO controller or free contact on an indoor unit available. * Ver. 2.30 or later

Energy saving functions

Seasonal scheduling and automatic switch over *1
Yearly scheduling on LCD *1
Scheduling fan speed and airflow direction
Optimized Start up *1
External temperature interlock control *1
Night setback control *1
*1 License required.

Functions

□ : Each unit ○ : Each group ● : Each block △ : Each floor ◎ : Collective × : Not available			
Item	Description	Operations	Display
Controllable unit	50 units/groups or 150 units/groups via expansion controller; PAC-YG50ECA.		
ON/OFF	Run and stop operation for the air conditioner units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	○ ◎ △ ●	○ ◎
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. (Group of LOSSNAY unit : automatic ventilation/ vent - heat interchange/ normal ventilation) depending on the air conditioner unit. Auto mode is for CITY MULTI R2 and WR2 series only.	○ ◎ △ ●	○
Temperature setting	Cool/Dry : 19°C (67°F) - 30°C (87°F) [14°C (57°F) - 30°C (87°F)] Heat : 17°C (63°F) - 28°C (83°F) [17°C (63°F) - 28°C (83°F)] Auto : 19°C (67°F) - 28°C (83°F) [17°C (63°F) - 28°C (83°F)] [] in case of using middle-temperature on PDFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	○ ◎ △ ●	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low Fan speed setting (including Auto) varies depending on the model.	○ ◎ △ ●	○
Air flow direction setting	Air flow direction angles, 4-angle or 5-angle Swing, Auto (Louver cannot be set)	○ ◎ △ ●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○ ◎ △ ●	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter).	○ ◎ △ ●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	○
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	×	□ ◎
Test run	This operates air conditioner units in test run mode.	○ ◎ △ ●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○ ◎ △ ●	○
External input/output	By using optional external input/output adaptor (PAC-YG10HA) you can set and monitor the following. Input : By level signal : "Batch start/stop", "Batch emergency stop" By pulse signal : "Batch start/stop", "Enable/disable local remote controller" Output : "Start/stop", "Error/Normal"	◎	◎

*NOTE: Operation and displayed content vary depending on the indoor unit model.
◆Future release schedule is subject to change without notice.

Centralized controller GB-50ADA

New



GB-50ADA (without display)

- Dimensions: 250 (W) x 217 (H) x 97.2 (D) mm
: 9-7/8 (W) x 8-9/16 (H) x 3-7/8 (D) in.

The Web Server Function enables Remote Operation or Scheduling Via a Web Browser on a Personal Computer!
Up to 50 indoor units can be controlled!

Web Browser

Enables monitoring and operation of indoor units using a PC with Microsoft® Internet Explorer (Ver.6 or 7 or 8) (Web browser function is an optional and needs license registration.)

*When connecting to the Internet, please use the VPN (Virtual Private Network).

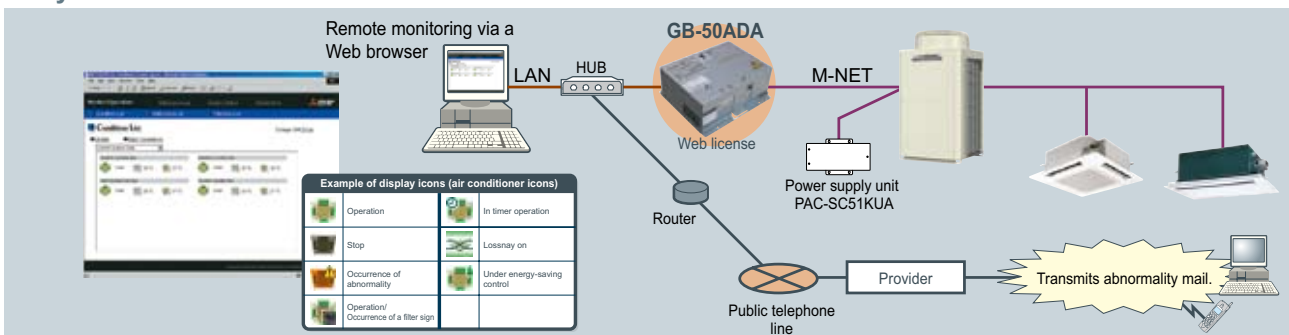
Using "Dial-up Connection"

- Enables monitoring and operation from a remote place
- Enables error notification by e-mails to a PC or to a mobile phone

Function	Description
	GB-50ADA (web browser)
Controllable unit	Up to 50 units/groups.
Dimensions W x H x D	250 (9-7/8) x 217 (8-9/16) x 97.2 (3-7/8) mm (in)
ON / OFF	Run and stop operation for the air conditioner units
Mode selection	Switches between Cool / Dry / Auto / Fan / Heat.
Temperature setting	Range of temperature setting Cool/Dry : 19-30°C [14-30°F] / 67-87°F [57-87°F] Heat : 17-28°C [17-28°F] / 63-83°F [63-83°F] Auto : 19-28°C [17-28°F] / 67-83°F [63-83°F] () In case of using middle-temperature on PEFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded. *Range of temperature settings vary depending on model.
Air flow direction setting	Air flow direction angles, 4-angle or 5-angle Swing, Auto (Louver cannot be set)
Timer operation / Schedule	Annul/Weekly (2 types)/today schedule can be set for each group of air conditioning units. Optimized startup setting is also available.
Permit / Prohibit function	Individually prohibit operation of each local remote control function
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.
Test run	-
Ventilation interlock	Operation of indoor groups or general equipment can be interlocked by the change of state (ON/OFF, mode, error of indoor groups and general equipment).

*NOTE: Operation and displayed content vary depending on the indoor unit model.

System Structure



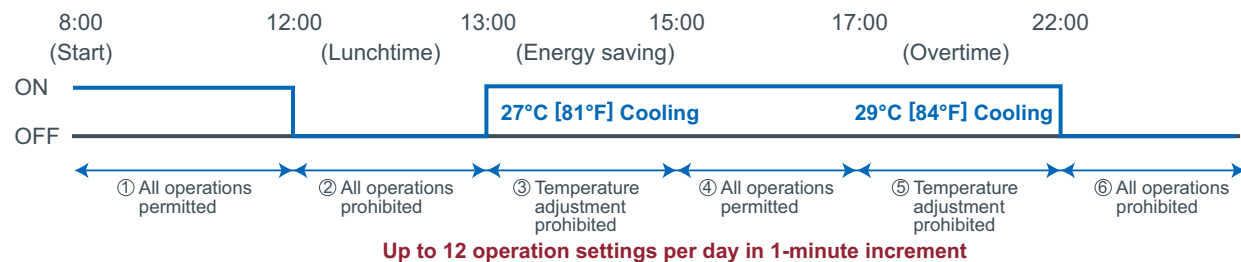
Annual / Weekly Schedule

Enables Weekly and Annual scheduling with a registering license

- ON/OFF, operation mode, temperature setting, prohibit remote controller operation can be set.
- For annual schedule, it is possible to set 50 day-long settings up to 24 months into the future.



Scheduling example in the office



Centralized Remote Controller

PI Controller PAC-YG60MCA

New



Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

No more PLCs are needed!

Our new PI controller makes it possible to perform energy saving without PLC, which is cost saving. Maximum of 4 measurement meter (WHM, gas meter, water meter, calorie meter) can be connected to the PI controller and can be used also for charge calculation.

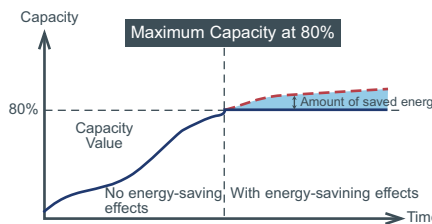
*24 VDC power needs to be provided on site.

Energy Saving Control

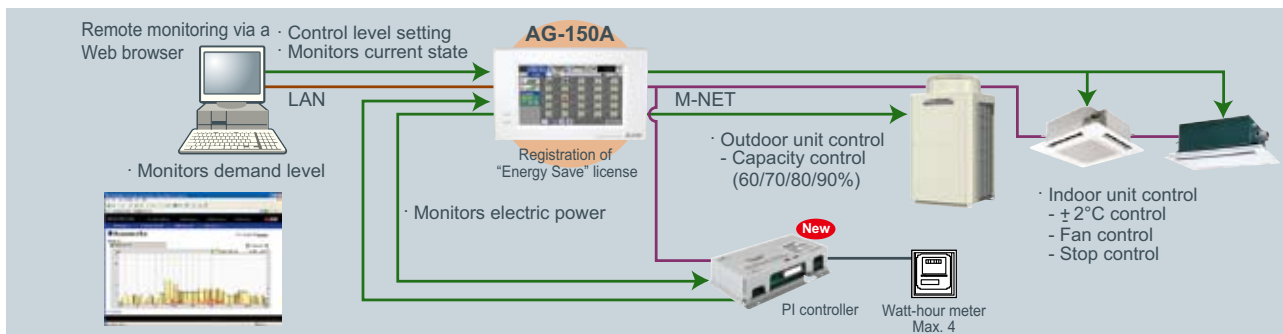
Enables Energy Saving Control with the use of our new PI controller. (Registration of "Energy Save" licence is required.)

To perform energy saving, the capacity of the outdoor unit is controlled.

*Please note that when using an energy saving control, there are no warranties to failures such as usage over the contracted electricity.



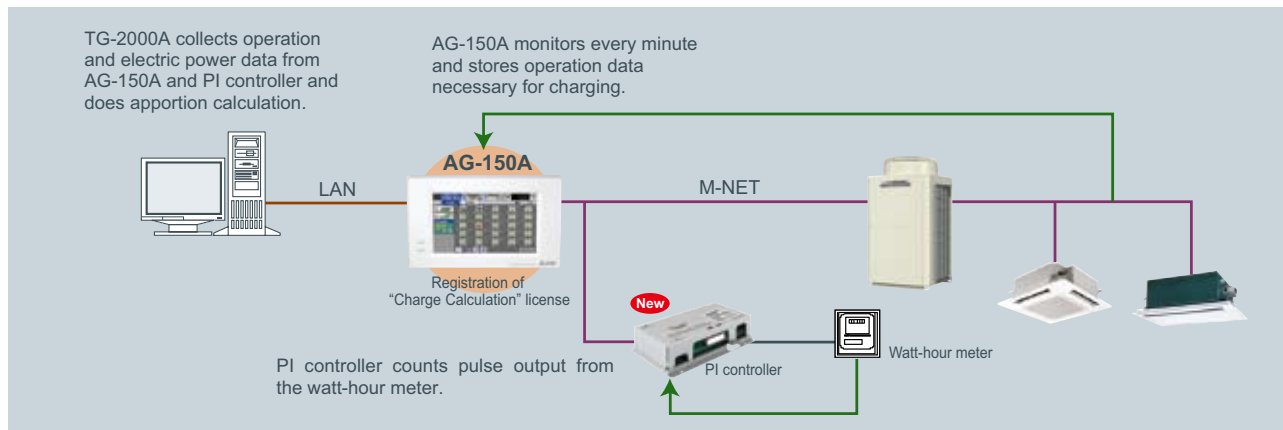
System Structure



Charge Calculation

Enables charge calculation for each tenant and output as CSV file

System Structure



Centralized Remote Controller

DIDO Controller PAC-YG66DCA

New



Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

General-purpose equipment Control

Enables to control and monitor equipment other than air-conditioners (air-conditioners of other companies, lights, ventilators, etc.)

- In addition to above, the air-conditioners can be interlocked with general-purpose equipment. E.g. Interlock between indoor units and security system.
- The indoor units can be turned ON/OFF when the security system is activated/deactivated.

Icon display (Lights)

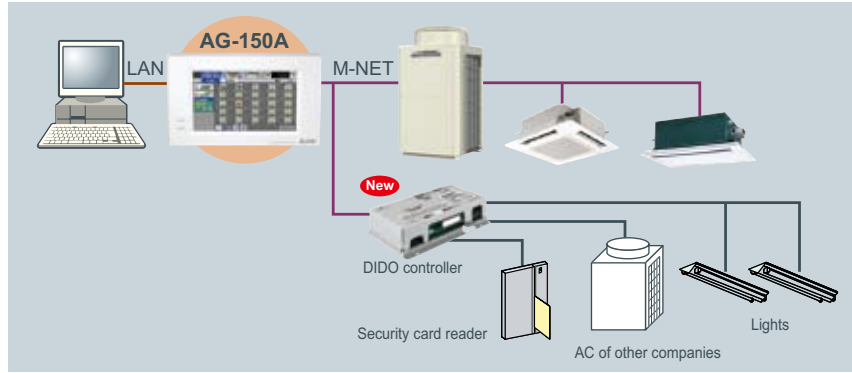
ON

OFF

Error

Schedule set

System Structure



AI Controller PAC-YG63MCA

New



Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

Our new AI controller makes it possible to monitor the values measured by the temperature/humidity sensor connected to the AI controller.
The AI controller has two input and two output channels.
*24 VDC power needs to be provided on site.

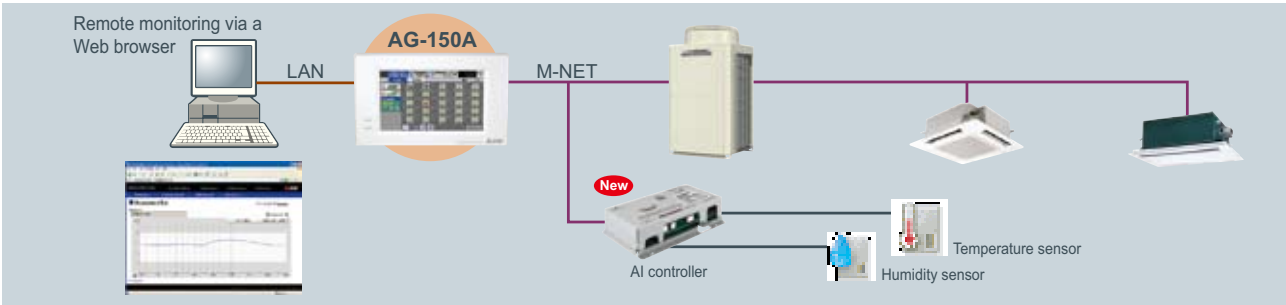
Temperature/Humidity Monitoring

Monitors the values measured by the temperature/humidity sensor connected to the AI controller

Temperature : Pt100, 4 to 20mA DC, 1 to 5 VDC, 0 to 10 VDC
Humidity : 4 to 20mA DC, 1 to 5 VDC, 0 to 10 VDC

- Trend displays of measurement data can be shown on a Web browser.
- An alarm can be output by e-mail when measurement data exceeds a preset upper or lower limit.

System Structure



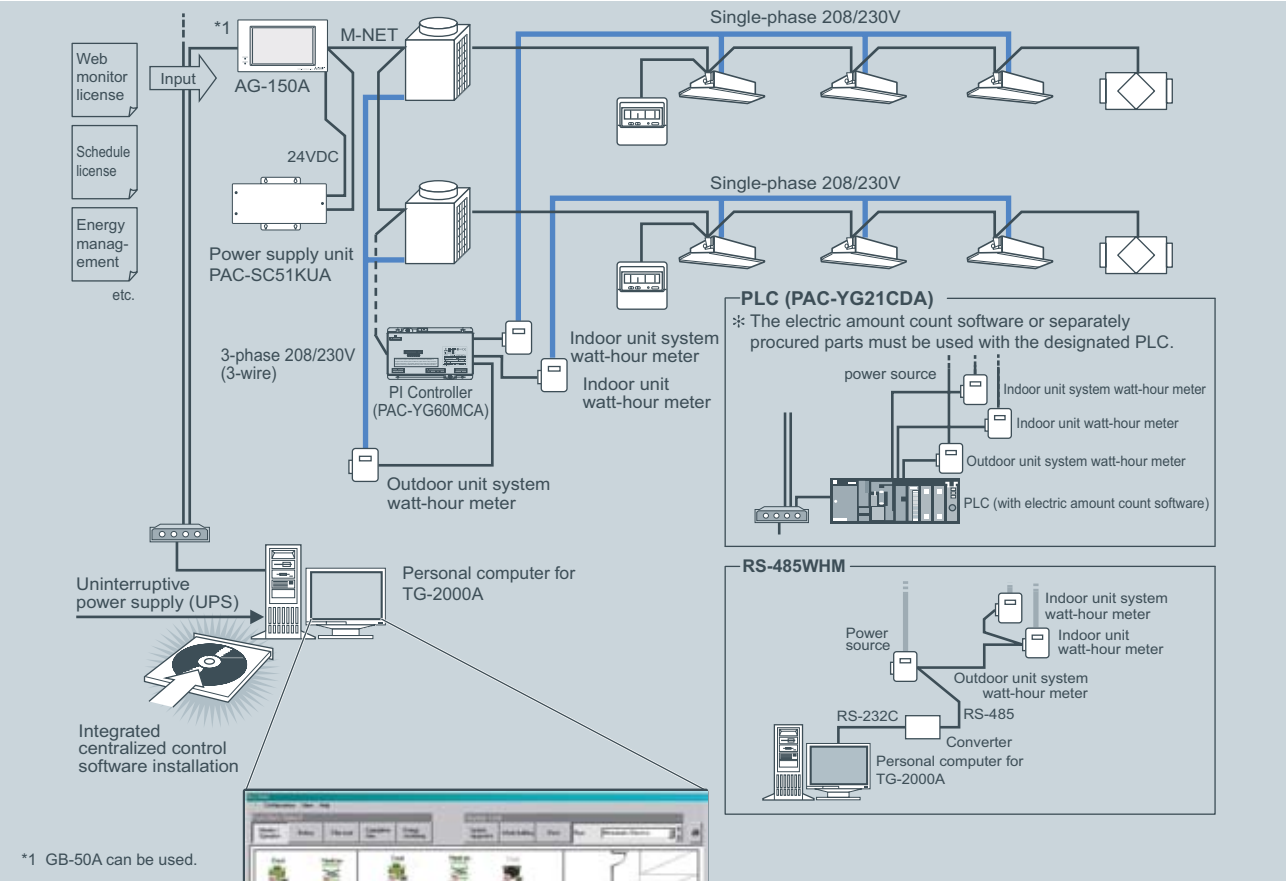
Remote Controller

Integrated centralized control software TG-2000A

Up to 150 units can be controlled by AG-150A.*

*Expansion controller is required.

Example of Basic System Configuration



*1 GB-50A can be used.

The air-conditioning layout can be displayed on the screen, making control and operation easier.

Effective use of TG-2000A

Multiple air conditioning charges in multiple buildings can be calculated. The power apportionment percentage data and apportioned power rate can be calculated for each unit, and can be output as a CSV file.



For example, installing TG-2000A to the system in the headquarters makes it possible to control AG-150A/GB-50ADA* units that are used in branch offices.

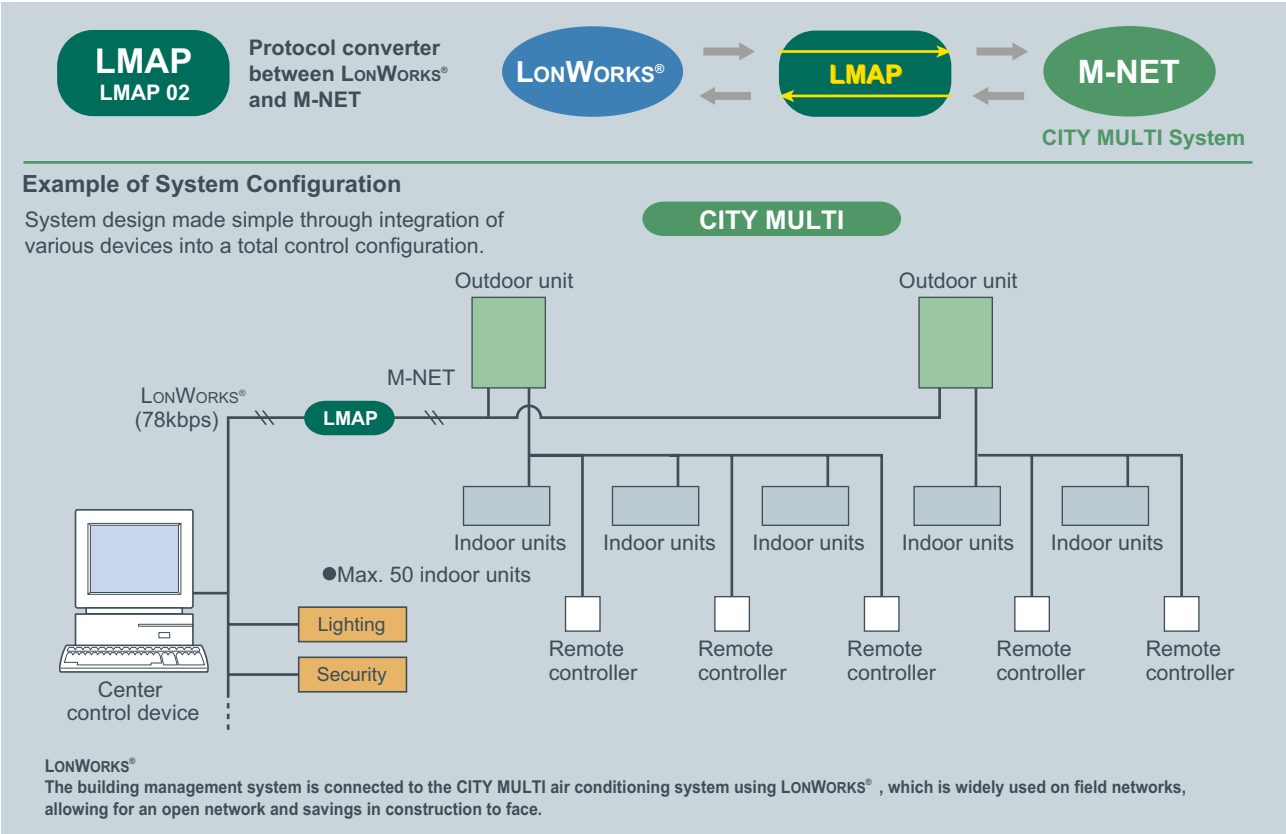
It is planned that GB-50ADA will be supported on TG-2000A Ver. 6.3 or later.

Remote Controller

LONWORKS® (LMAP02)

CITY MULTI can easily combine into a Building Management System (BMS) via the LONWORKS® and M-NET adapter LMAP02. LONWORKS® is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS management via LONWORKS®.

One LM ADAPTER unit can connect up to 50 Groups/50 indoor units.
Using a single LONWORKS® adapter (LM ADAPTER), you can connect up to a maximum of 50 indoor units.



LON, LONWORKS® and the Echelon logo are trademarks of Echelon Corporation registered in the United States and other countries.

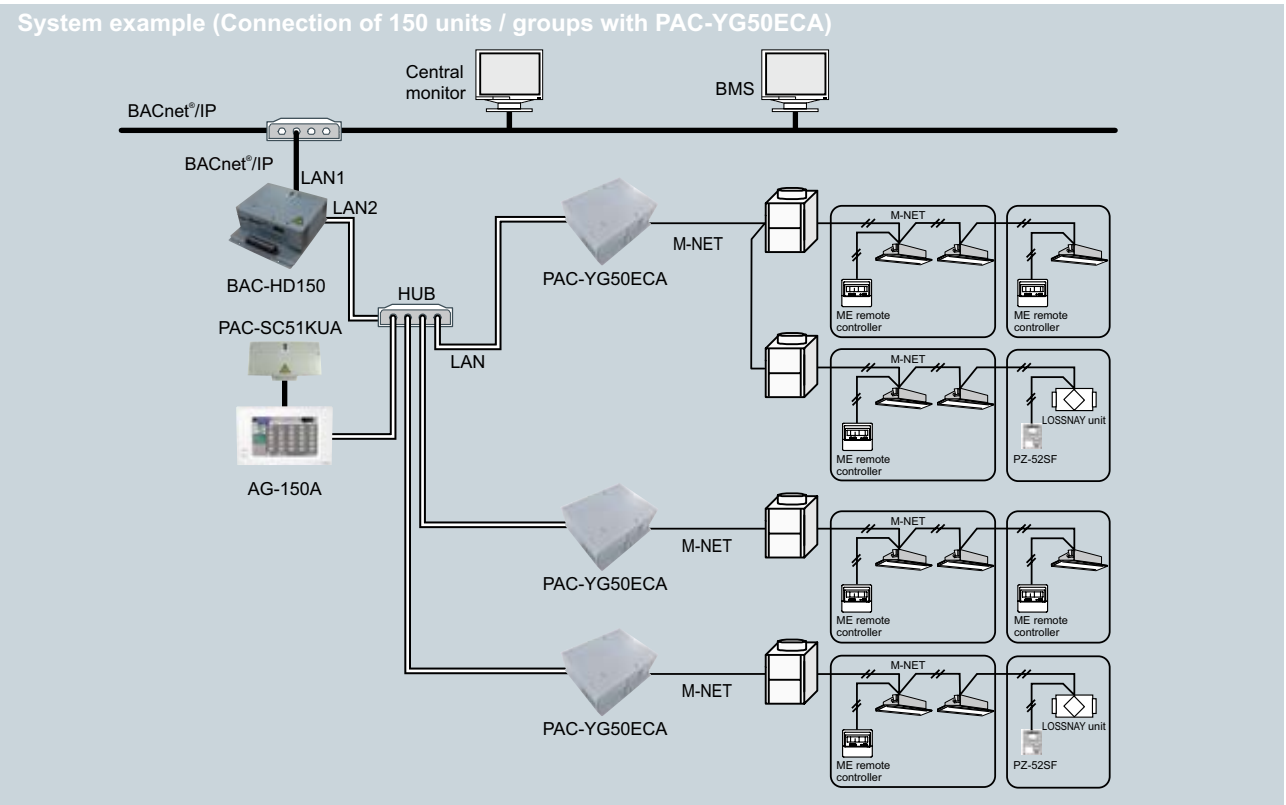
LONWORKS® INTERFACE		
FUNCTION		CONTENT
Control		
ON/OFF		Run/Stop
Mode Operation		Cool/Dry/Heat/Auto/Fan
Setpoint Adjustment		Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Fan Speed Control		Lo-Mi1-Mi2-Hi
Permit / Prohibit		On/Off,Mode,Setpoint
Emergency Stop		-
Monitoring		
ON/OFF		Run/Stop
Mode		Cool/Dry/Heat/Auto/Fan
Setpoint		Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Fan Speed		Lo-Mi1-Mi2-Hi
Permit / Prohibit		On/Off,Mode,Setpoint
Alarm State		-
Room Temperature		-10°C~50°C
Thermo ON/OFF		On/Off

New

BACnet® and M-NET adapter (BAC-HD150)

CITY MULTI can easily combine into a Building Management System (BMS) via the BACnet® and M-NET adapter BAC-HD150. BACnet is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS management via BACnet.

BAC-HD150 can control up to 50 units/groups (including LOSSNAY).
Up to 150 units/groups (including LOSSNAY) can be controlled from one BAC-HD150 with three expansion controllers PAC-YG50ECA. (50 units/PAC-YG50ECA)



BACnet® and M-NET adapter	
FUNCTION	CONTENT
Operation	
ON/OFF	Run/ Stop
Mode	Cool/ Dry/ Heat/ Auto/ Fan
Fan Speed	Low-Mid1-Mid2-Hi
Airflow Direction	Horizontal- 60°-80°-100°swing
Set Temperature	Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Filter Sign Reset	Normal/ Reset
Permit/ Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.
Forced OFF	Release/ Effective
Monitoring	
ON/OFF	Run/ Stop
Mode	Cool/ Dry/ Heat/ Auto/ Fan
Fan Speed	Low-Mid1-Mid2-Hi
Air Direction	Horizontal- 60°-80°-100°swing
Set Temperature	Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Filter Sign	Normal/ Reset
Permit/ Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.
Indoor Temperature	-
Alarm Signal	Normal/ Abnormal
Error Code	2 Character code- Indicates all unit alarms
Communication State	Normal/ Abnormal

















I ndoor unit

- Ceiling cassette type 4-way airflow
- Ceiling cassette type 2-way airflow
- Ceiling cassette type 1-way airflow
- Ceiling concealed type
- Fresh Air Intake type
- Ceiling suspended type
- Wall mounted type
- Floor standing exposed
- Floor mounted concealed type



Wide selection of indoor units

Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
Nominal HP		0.6	0.8	1.0	1.3	1.6	2.0	2.5	2.8	3.2	4.0	5.0	5.6	8.0	10.0
Nominal cooling cap.	kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0	22.4	28.0
	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100	24,200	27,300	30,700	38,200	47,800	54,600	76,400	95,500
Nominal heating cap.	kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0	25.0	31.5
	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400	85,300	107,500
Ceiling cassette		<div>PLFY-P VBM-E<div>New</div></div> <div>PLFY-P VLMD-E</div> <div>PMFY-P VBM-E</div>													
Page33 - Page38															
Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
PLFY-P VBM-E					●	●	●	●		●	●	●			
PLFY-P VLMD-E			●	●	●	●	●	●		●	●	●			
PMFY-P VBM-E			●	●	●	●									
Ceiling concealed		<div>PEFY-P VMR-E-L/R</div> <div>PEFY-P VMS1(L)-E<div>New</div></div> <div>PEFY-P VMA(L)-E<div>New</div></div> <div>PEFY-P VMH-E</div>													
Page39 - Page46															
Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
PEFY-P VMR-E-L/R		●	●	●	●	●	●	●							
PEFY-P VMS1(L)-E			●	●	●	●	●	●							
PEFY-P VMA(L)-E			●	●	●	●	●	●	●	●	●	●	●	●	
PEFY-P VMH-E						●	●	●	●	●	●	●	●	●	●
Ceiling concealed		<div>PEFY-P VMH-E-F *3</div>													
Page47 - Page48															
Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
PEFY-P VMH-E-F										●			●	●	●
Ceiling suspended		<div>PCFY-P VKM-E<div>New</div></div>													
Page49 - Page50															
Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
PCFY-P VKM-E						●		●			●	●			
Wall mounted		<div>PKFY-P VBM-E<div>New</div></div> <div>PKFY-P VHM-E<div>New</div></div> <div>PKFY-P VKM-E<div>New</div></div>													
Page51 - Page52															
Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
PKFY-P VBM-E		●	●	●											
PKFY-P VHM-E					●	●	●								
PKFY-P VKM-E								●			●				
Floor standing Floor mounted concealed type		<div>PFFY-P VLEM-E</div> <div>PFFY-P VLRM-E</div> <div>VLRMM-E<div>New</div></div>													
Page53 - Page56															
Model size		P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
PFFY-P VLEM-E			●	●	●	●	●	●							
PFFY-P VLRM-E			●	●	●	●	●	●							
PFFY-P VLRMM-E			●	●	●	●	●	●							

* Nominal conditions *1, *2 are referable at the Specification sheet.
*3. Heating capacity for PEFY-P VMH-E-F is shown in the following table.

Model size		P80	P140	P200	P250
TON		2.5	4.5	6.0	8.0
Nominal heating cap. *2	kW	8.5	15.1	21.2	26.5
	BTU/h	29,000	51,500	76,400	95,500



INDOOR UNIT
Ceiling cassette type
4-way airflow

PLFY-P VBM-E *i-see Sensor*



The new 4-way cassette VBM offers 72 different airflow patterns, making it ideal for applications with ceilings up to 4.2 m (13-13/16ft) in height.



Automatic Air Speed Adjustment

Auto-fan-speed mode enables speedy and comfortable heating during heating startup.

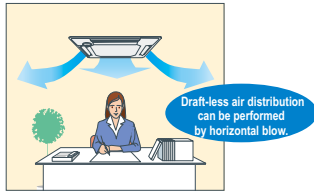
The Auto-fan-speed mode is added to the usual four steps "Low, Mid1, Mid2, High." The Auto-fan-speed mode enables speedy and comfortable air conditioning because the air flow speeds up when starting, and air flow slows down when the air conditioning becomes stable.



* When using a wireless remote controller, initial settings are required.

Draft-less Air Distribution

The horizontal blow mode* newly employed supplies airflow horizontally not bringing cooled/warmed air directly to occupants thus preventing discomfort sensation due to excessive cooling or direct exposing of occupants to the air blow.



*Default
*The ceiling may be smudged at a spot where the supplied airflow is seriously disturbed.

Wide Air Flow

Cooling softly with Wide Air Flow

Discharge air reaches wider area and the fan speed is decreased by 20% thanks to the new wide shape air outlet.



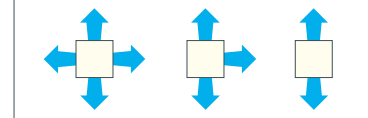
72 patterns of airflow to accommodate any room layout are available.

First in the industry
*On the commercial air conditioners (According to the survey by Mitsubishi Electric)

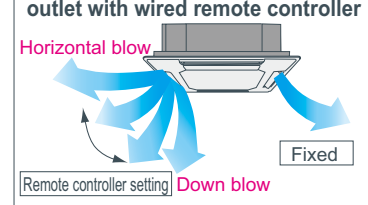
The number of outlet can be set to 4, 3, or 2. Flexible airflow is available by fixing the up-down airflow direction of the outlet with a wired remote controller (or manually).

72 airflow patterns

4-, 3-, or 2- way outlet selection



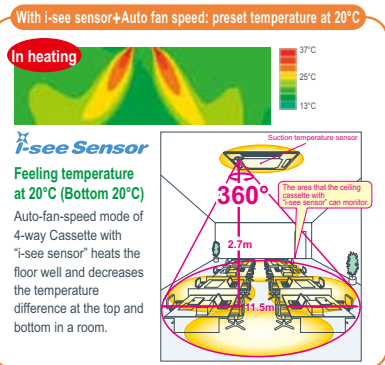
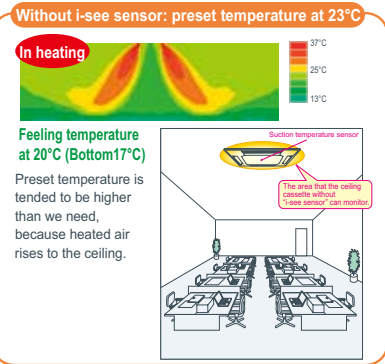
Setting the air direction for each outlet with wired remote controller



"i-see sensor" can be used with ceiling cassette type 4-way airflow unit. (Option PAC-SA1ME-E)

New 4-way Cassette PLFY-VBM controls the temperature difference at the top and bottom in a room by checking the floor temperature with "i-see sensor". Comfortable air conditioning can be realized smoothly with "sensible temperature control." (Option PAC-SA1ME-E)

Prevents overcooling/overheating, and improves comfort/energy-efficiency



► Specifications

			PLFY-P32VBM-E	PLFY-P40VBM-E	PLFY-P50VBM-E	PLFY-P63VBM-E	PLFY-P80VBM-E	PLFY-P100VBM-E	PLFY-P125VBM-E	
Power source			1-phase 220-240V 50Hz / 1-phase 200V 60Hz							
Cooling capacity	*1	kW	3.6	4.5	5.6	7.1	9.0	11.2	14.0	
	*1	BTU/h	12,300	15,400	19,100	24,200	30,700	38,200	47,800	
Heating capacity	*1	kW	4.0	5.0	6.3	8.0	10.0	12.5	16.0	
	*1	BTU/h	13,600	17,100	21,500	27,300	34,100	42,700	54,600	
Power consumption	Cooling	kW	0.03	0.04		0.05	0.07	0.15	0.16	
	Heating	kW	0.02	0.03		0.04	0.06	0.14	0.15	
Current	Cooling	A	0.22	0.29		0.36	0.51	1.00	1.07	
	Heating	A	0.14	0.22		0.29	0.43	0.94	1.00	
External finish (Munsell No.)	Unit	Galvanized steel sheet								
	Panel	White (6.4Y 8.9/0.4)								
Dimension H X W X D	Unit	mm(in.)	258 X 840 X 840 (10-3/16 X 33-8/1 X 33-8/1)						298 X 840 X 840 (11-3/4 X 33-1/8 X 33-1/8)	
	Panel	mm(in.)	35 X 950 X 950 (1-3/8 X 37-7/16 X 37-7/16)							
Net weight	Unit	kg(lbs)	22 (49)			23 (51)			27 (60)	
	Panel	kg(lbs)	6 (13)							
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)							
Fan	Type X Quantity		Turbo fan X 1							
	Airflow rate (Lo-Mid1-Mid2-Hi)	*2 m ³ /min	11-12-13-14	12-13-14-16		14-15-16-18	16-18-20-22	21-24-27-29	22-25-28-30	
		L/s	183-200-217-233	200-217-233-267		233-250-267-300	267-300-333-367	350-400-450-483	367-417-467-500	
		cfm	388-424-459-494	424-459-494-565		494-530-565-636	565-636-706-777	742-848-953-1024	777-883-989-1059	
	External static pressure	Pa	0							
Motor	Type		DC motor							
	Output	kW	0.050						0.120	
Air filter			PP Honeycomb							
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)		ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)		ø15.88(ø5/8)		ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)		ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)		ø9.52 (ø3/8)			
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)							
Sound pressure level (Lo-Mid1-Mid2-Hi) *2 *3		dB(A)	27-28-29-31	27-28-30-31		28-29-30-32	30-32-35-37	34-37-39-41	35-38-41-43	

Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- *2 Airflow rate/Sound pressure level are in (low-middle-high) or (low-middle1-middle2-high).
- *3 It is measured in anechoic room at power source 230V.

INDOOR UNIT
Ceiling cassette type
2-way airflow
PLFY-P VLMD-E

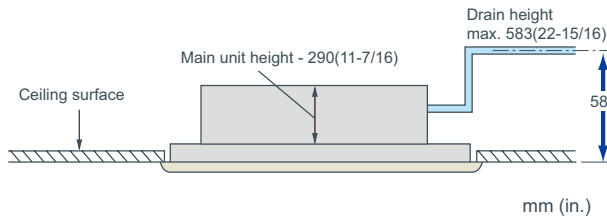


Slim body of 290mm(11-7/16in.) height



Equipped with drain pump
mechanism as standard

The drain can be positioned anywhere up to 583mm(22-15/16in.) from the ceiling's surface, providing greater freedom with long cross-piping and allowing more versatility with piping layouts.



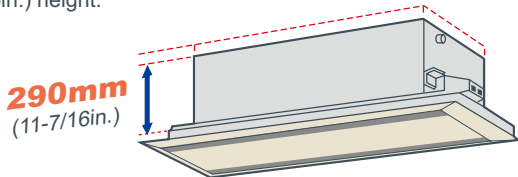
Compact unit and low sound pressure level attained!

Sound pressure level table (Standard static pressure) at 15Pa											dB(A)
Sound pressure Level	Capacity		P20	P25	P32	P40	P50	P63	P80	P100	P125
	Fan Speed	High	33			36	37	39	39	42	46
		Mid	30			33	34	37	36	39	42/44
		Low	27			29	31	32	33	36	40
<220V,240V>											

											dB(A)
Sound pressure Level	Capacity		P20	P25	P32	P40	P50	P63	P80	P100	P125
	Fan Speed	High	34			37	38	40	40	43	46
		Mid	31			34	35	38	37	41	42/44
		Low	28			30	32	33	34	37	40
<230V>											

Slim body - only 290mm(11-7/16in.) height

The slimline body is highly suitable for installation in narrow ceiling spaces and for replacing obsolete air-conditioning equipment in older buildings. The main unit is only 290mm(11-7/16in.) height.



Terminal block on outside of main unit
makes wiring easier

Fresh air directly taken in

Fresh air can be taken in to the main unit directly (optional accessories needed.)

Long life filter equipped as standard

The antibacterial long life filter does not require maintenance for approximately a year.

Easy installation

Lighter panel and placing the electric board near the panel make installation and maintenance easier. Also, the heat exchanger is washable by displacing the center panel, filter, and fan.

► Specifications

			PLFY-P20VLMD-E	PLFY-P25VLMD-E	PLFY-P32VLMD-E	PLFY-P40VLMD-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.072 / 0.075	0.072 / 0.075	0.072 / 0.075	0.081 / 0.085
	Heating	kW	0.065 / 0.069	0.065 / 0.069	0.065 / 0.069	0.074 / 0.079
Current	Cooling	A	0.36 / 0.37	0.36 / 0.37	0.36 / 0.37	0.40 / 0.42
	Heating	A	0.30 / 0.32	0.30 / 0.32	0.30 / 0.32	0.34 / 0.37
External finish (Munsell No.)	Unit	Galvanized steel plate				
	Panel	Pure white (6.4Y 8.9/0.4)				
Dimension H X W X D	Unit	mm (in.)	290 X 776 X 634 (11-7/16 X 30-9/16 X 25)			
	Panel	mm (in.)	20 X 1080 X 710 (13/16 X 42-9/16 X 28)			
Net weight	Unit	kg(lbs)	23 (51)		24 (53)	
	Panel	kg(lbs)	6.5 (15)			
Heat exchanger			Cross fin			
Fan	Type X Quantity	Turbo fan X 1				
	Airflow rate *2 (Lo-Mid-Hi)	m³/min	6.5-8.0-9.5			7.0-8.5-10.5
		L/s	108-133-158			117-142-175
		cfm	230-283-335			247-300-371
	External static pressure	Pa	0			
Motor	Type	1-phase induction motor				
	Output	kW	0.015 (at 240V)			
Air filter			PP honeycomb fabric (long life type)			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)			
Sound pressure level *2 (Lo-Mid-Hi) *3	220V,240V	dB(A)	27-30-33			29-33-36
	230V	dB(A)	28-31-34			30-34-37

			PLFY-P50VLMD-E	PLFY-P63VLMD-E	PLFY-P80VLMD-E	PLFY-P100VLMD-E	PLFY-P125VLMD-E	
Power source			1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz					
Cooling capacity	*1	kW	5.6	7.1	9.0	11.2	14.0	
	*1	BTU/h	19,100	24,200	30,700	38,200	47,800	
Heating capacity	*1	kW	6.3	8.0	10.0	12.5	16.0	
	*1	BTU/h	21,500	27,300	34,100	42,700	54,600	
Power consumption	Cooling	kW	0.082 / 0.086	0.101 / 0.105	0.147 / 0.156	0.157 / 0.186	0.28 / 0.28	
	Heating	kW	0.075 / 0.080	0.094 / 0.099	0.140 / 0.150	0.150 / 0.180	0.27 / 0.27	
Current	Cooling	A	0.41 / 0.43	0.49 / 0.51	0.72 / 0.74	0.75 / 0.88	1.35 / 1.35	
	Heating	A	0.35 / 0.38	0.43 / 0.46	0.66 / 0.69	0.69 / 0.83	1.33 / 1.33	
External finish (Munsell No.)	Unit	Galvanized steel plate						
	Panel	Pure white (6.4Y 8.9/0.4)						
Dimension H X W X D	Unit	mm (in.)	290 X 946 X 634 (11-7/16 X 37-1/4 X 25)		290 X 1446 X 634 (11-7/16 X 56-15/16 X 25)		290 X 1708 X 606 (11-7/16 X 67-1/4 X 23-7/8)	
	Panel	mm (in.)	20 X 1250 X 710 (13/16 X 49-1/4 X 28)		20 X 1750 X 710 (13/16 X 68-15/16 X 28)		20 X 2010 X 710 (13/16 X 79-3/8 X 28)	
Net weight	Unit	kg(lbs)	27 (60)	28 (62)	44 (98)	47 (104)	56 (124)	
	Panel	kg(lbs)	7.5 (17)		12.5 (28)		13.0 (29)	
Heat exchanger			Cross fin					
Fan	Type X Quantity	Turbo fan X 1			Turbo fan X 2		Sirocco fan X 4	
	Airflow rate *2	m³/min	9.0-11.0-12.5	11.0-13.0-15.5	15.5-18.5-22.0	17.5-21.0-25.0	24.0-27.0-30.0-33.0	
	(P50~P100:Lo-Mid-Hi)	L/s	150-183-208	167-217-258	258-308-367	292-350-417	400-450-500-550	
	(P125:Lo-Mid2-Mid1-Hi)	cfm	318-388-441	353-459-547	547-653-777	618-742-883	848-953-1,059-1,165	
	External static pressure	Pa	0					
Motor	Type	1-phase induction motor						
	Output	kW	0.020 (at 240V)		0.020 (at 240V)	0.030 (at 240V)	0.078 X 2 (at 240V)	
Air filter			PP honeycomb fabric (long life type)					Synthetic fiber unwoven cloth filter (long life)
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)				
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)				
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)					
Sound pressure level	*2	220V,240V	dB(A)	31-34-37	32-37-39	33-36-39	36-39-42	
	*3	(Lo-Mid-Hi) 230V	dB(A)	32-35-38	33-38-40	34-37-40	37-41-43	
							40-42-44-46 (Lo-Mid2-Mid1-Hi)	

Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- *2 Airflow rate/sound pressure level are in (low-middle-high).
- *3 It is measured in anechoic room.

INDOOR UNIT
Ceiling cassette type
1-way airflow
PMFY-P VBM-E



Compact and lightweight body perfect for limited ceiling space applications.



Compact size for smooth installation and maintenance

Unit body size has been standardized for all models at 812mm for easier installation. Body weight is only 14kg for the main unit and 3kg for the panel, making this unit one of the lightest in the industry.

Quiet operation

Newly developed airflow control technology reduces sound pressure level to only 27dB (P20VBM) for industry-leading quiet performance.

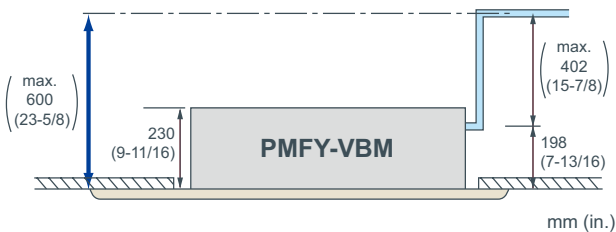
Sound pressure level table

Sound pressure level	Capacity		P20	P25	P32	P40
	Fan Speed	High	35	37	39	
		Mid 1	33	36	37	
		Mid 2	30	34	35	
		Low	27	32	33	

<220V,240V>

Drain pump

The drain can be positioned anywhere up to 600mm(23-5/8in.) from the ceiling's surface.



► Specifications

			PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.042	0.044	0.054	0.054
	Heating	kW	0.042	0.044	0.054	0.054
Current	Cooling	A	0.20	0.21	0.26	0.26
	Heating	A	0.20	0.21	0.26	0.26
External finish (Munsell No.)			Panel (0.98Y 8.99/0.63)			
Dimension			230 X 812 X 395 (9-1/16 X 32 X 15-9/16)			
H X W X D			30 X 1000 X 470 (1-3/16 X 39-3/8 X 18-9/16)			
Net weight	Unit	kg(lbs)	14 (31)			
	Panel	kg(lbs)	3 (7)			
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)			
Fan	Type		Line flow fan X 1			
	Airflow rate	*2 m³/min	6.5-7.2-8.0-8.7	7.3-8.0-8.6-9.3	7.7-8.7-9.7-10.7	
		L/s	108-120-133-145	122-133-143-155	128-145-162-178	
	External static pressure	cfm	230-254-283-307	258-283-304-328	272-307-343-378	
		Pa	0	0	0	
Motor	Type		1-phase induction motor			
	Output	kW	0.028			
Air filter			PP Honeycomb fabric			
Refrigerant	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
pipe diameter	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter			I.D. 26 (1) <VP-20>			
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3			27-30-33-35	32-34-36-37	33-35-37-39	

Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- *2 Airflow rate/sound pressure level are in (low-middle2-middle1-high).
- *3 It is measured in anechoic room.

INDOOR UNIT
Ceiling concealed type

PEFY-P VMR-E-L/R

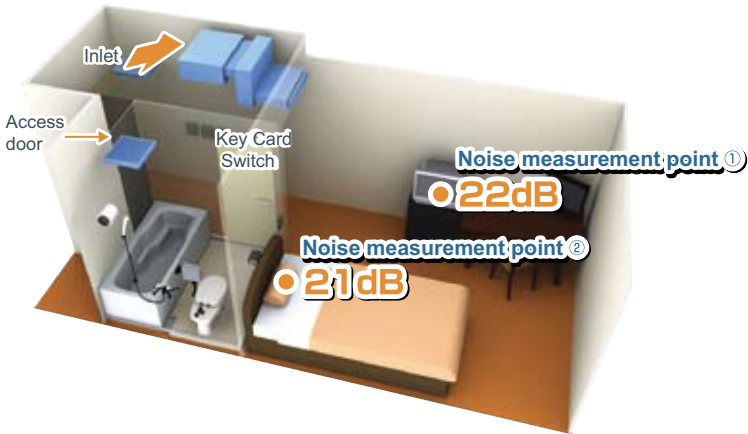
Static pressure
5Pa

Width
640mm
25-6/32in.

Ultra
Low Noise

Piping connection
L model
R model

Problem solver for residential hotels, museums, libraries, or hospitals where low noise is especially a must!



Operable by key card switch

It is possible to operate / stop by taking a key card in and out.

Enables to install for symmetric design room

Left or right piping and control boxes are available depending on the layout of each room. Plus, as in the above figure, easy maintenance is possible from the access door in the bathroom.

*Seen from the front, the pipe and control box are on the right side for -R models.

Easy Maintenance

Drain pan and heat exchangers are washable from the access door in the bathroom, making maintenance easy and cost saving.



Ultra low noise

Quiet indoor environment can be achieved with 21dB around the bed and 22dB around the desk.

*The sound pressure level may differ by the room size or the setting of the unit.

Energy saving

Energy saving can be realized by preventing us from failing to switch off of the air conditioners with a centralized system when no one is in the room.

Note: Compact and simple controllers, designed specifically to control only start/stop, fan speed and temperature can be set in each room for the occupants' enhanced individual comfort.

► Specifications

			PEFY-P20VMR-E-L	PEFY-P25VMR-E-L	PEFY-P32VMR-E-L
Power source			1-phase 220-230-240V 50Hz / 1-phase 220-230V 60Hz		
Cooling capacity	*1	kW	2.2	2.8	3.6
		BTU/h	7,500	9,600	12,300
Heating capacity	*1	kW	2.5	3.2	4.0
		BTU/h	8,500	10,900	13,600
Power consumption	Cooling	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
	Heating	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
Current	Cooling	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
	Heating	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
External finish			Galvanized		
Dimension	Rear inlet	mm (in.)	292 X 640 X 580 (11-1/2 X 25-1/4 X 22-7/8)		
H X W X D	Bottom inlet	mm (in.)	300 X 640 X 570 (11-7/8 X 25-1/4 X 22-1/2)		
Net weight			18 (40)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Fan	Type X Quantity		Sirocco fan X 1		
	Airflow rate (Lo-Mid-Hi)	m³/min	4.8-5.8-7.9		
		L/s	80-97-132		
		cfm	170-205-279		
Motor	External static pressure	*2 Pa	5		
	Type		1-phase induction motor		
Air filter	Output	kW	0.018	0.023	
			PP Honeycomb fabric (washable)		
Refrigerant	Gas	mm(in.)	ø12.7 (ø1/2) Brazed		
pipe diameter	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed		
Field drain pipe diameter		mm(in.)	O.D. 26 (1)		
Sound pressure level (Lo-Mid-Hi) *3	220V	dB(A)	20-25-30		20-25-33
	230V		21-26-32		21-26-35
	240V		22-27-30		22-27-33

			PEFY-P20VMR-E-R	PEFY-P25VMR-E-R	PEFY-P32VMR-E-R
Power source			1-phase 220-230-240V 50Hz / 1-phase 220-230V 60Hz		
Cooling capacity	*1	kW	2.2	2.8	3.6
		BTU/h	7,500	9,600	12,300
Heating capacity	*1	kW	2.5	3.2	4.0
		BTU/h	8,500	10,900	13,600
Power consumption	Cooling	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
	Heating	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
Current	Cooling	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
	Heating	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
External finish			Galvanized		
Dimension	Rear inlet	mm (in.)	292 X 640 X 580 (11-1/2 X 25-1/4 X 22-7/8)		
H X W X D	Bottom inlet	mm (in.)	300 X 640 X 570 (11-7/8 X 25-1/4 X 22-1/2)		
Net weight			18 (40)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Fan	Type X Quantity		Sirocco fan X 1		
	Airflow rate (Lo-Mid-Hi)	m³/min	4.8-5.8-7.9		
		L/s	80-97-132		
		cfm	170-205-279		
Motor	External static pressure	*2 Pa	5		
	Type		1-phase induction motor		
Air filter	Output	kW	0.018	0.023	
			PP Honeycomb fabric (washable)		
Refrigerant	Gas	mm(in.)	ø12.7 (ø1/2) Brazed		
pipe diameter	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed		
Field drain pipe diameter		mm(in.)	O.D. 26(1)		
Sound pressure level (Lo-Mid-Hi) *3	220V	dB(A)	20-25-30		20-25-33
	230V		21-26-32		21-26-35
	240V		22-27-30		22-27-33

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Heating : Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB

*2 The external static pressure is set to 100Pa (at 220V) / 150Pa (at 230, 240V) at factory shipment.

*3 Measured in anechoic room. Sound pressure levels of the unit with a rear air inlet. (Sound pressure levels are higher than the unit with a bottom air inlet.)

INDOOR UNIT
Ceiling concealed type

PEFY-P VMS1(L)-E

Static Pressure
5~50Pa

Height
200mm
7-7/8in.

Low Noise

Width
790mm
31-1/8in.

Width
990mm
39in.

Width
1,190mm
46-7/8in.

The ultra thin unit offers increased flexibility, and is particularly suitable for places where low noise operation is desired from a slim line body.



Changeable static pressure

The unit is made suitable for a variety of applications with its four static pressure settings of 5, 15, 35, 50Pa.

Changeable airflow rate

Low, middle, and high fan speed settings deliver precise comfort.

Choice for drain pump

Drain pump is an optional part for the VMS1L, and a standard for VMS1.
*For places where low noise operation is especially required (i.e. Hotels), VMS1L (without drain pump) is recommended.

Reduced noise thanks to the use of newly designed centrifugal fan and coil

Sound pressure level table (Standard static pressure) at 15Pa									
dB(A)									
Sound pressure Level	Capacity		P15	P20	P25	P32	P40	P50	P63
	Fan Speed	High	28	29	30	32	33	35	36
		Mid	24	25	26	27	30	32	33
		Low	22	23	24	24	28	30	30

Indoor unit

New



Specifications

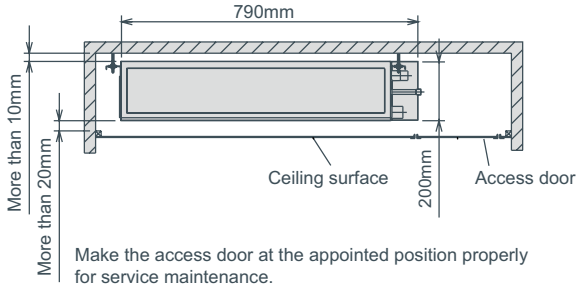
			PEFY-P15VMS1(L)-E	PEFY-P20VMS1(L)-E	PEFY-P25VMS1(L)-E	PEFY-P32VMS1(L)-E	PEFY-P40VMS1(L)-E	PEFY-P50VMS1(L)-E	PEFY-P63VMS1(L)-E	
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz							
Cooling capacity	*1	kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1	
	*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100	24,200	
Heating capacity	*1	kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0	
	*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500	27,300	
Power consumption	*3 Cooling	kW	0.05 [0.03]	0.05 [0.03]	0.06 [0.04]	0.07 [0.05]	0.07 [0.05]	0.09 [0.07]	0.09 [0.07]	
	*3 Heating	kW	0.03 [0.03]	0.03 [0.03]	0.04 [0.04]	0.05 [0.05]	0.05 [0.05]	0.07 [0.07]	0.07 [0.07]	
Current	*3 Cooling	A	0.42 [0.31]	0.47 [0.36]	0.50 [0.39]	0.50 [0.39]	0.56 [0.45]	0.67 [0.56]	0.72 [0.61]	
	*3 Heating	A	0.31 [0.31]	0.36 [0.36]	0.39 [0.39]	0.39 [0.39]	0.45 [0.45]	0.56 [0.56]	0.61 [0.61]	
External finish			Galvanized							
Dimension		mm	200 X 790 X 700				200 X 990 X 700		200 X 1,190 X 700	
H X W X D		in.	7-7/8 X 27-9/16 X 27-9/16				7-7/8 X 35-7/16 X 27-9/16		7-7/8 X 43-5/16 X 27-9/16	
Net weight		*3 kg(lbs)	19(42) [18(40)]			20(45) [19(42)]		24(53) [23(51)]		
Heat exchanger			Cross fin (Aluminium fin and copper tube)							
Fan	Type X Quantity		Sirocco fan X 2				Sirocco fan X 3		Sirocco fan X 4	
	Airflow rate (Lo-Mid-Hi)	m³/min	5-6-7	5.5-6.5-8	5.5-7-9	6-8-10	8-9.5-11	9.5-11-13	12-14-16.5	
		L/s	83-100-117	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275	
		cfm	176-212-247	194-229-282	194-247-317	212-282-353	282-335-388	335-388-459	424-494-583	
	External static press		Pa	5-15-35-50						
Motor	type		DC brushless motor							
	output	kW	0.096							
Air filter			PP Honeycomb fabric (washable)							
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed						ø15.88 (ø5/8) Brazed	
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed						ø9.52 (ø3/8) Brazed	
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)							
Sound pressure level (Lo-Mid-Hi) (measured in anechoic room)			dB<A>	22-24-28	23-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36

PP Honeycomb fabric

Washable PP Honeycomb fabric filter as standard

Ultra low height unit with 200mm (7-28/32in.) high
Ultra-narrow width of 790mm (P15-P32 models)
[990mm for P40,50 models / 1190mm for P63 models]

Can be installed easily in tight spaces, such as ceiling cavities or drop-ceilings.



Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor : 27°CDB./19°CWB. (81°FDB. / 66°FWB.) Outdoor : 35°CDB. (95°FDB.)
Heating : Indoor : 20°CDB. (68°FDB.) Outdoor : 7°CDB. / 6°CWB. (45°FDB. / 43°FWB.)
Pipe length : 7.5m (24-9/16ft) Height difference : 0m (0ft)
- *2 The external static pressure is set to 15 Pa at factory shipment.
- *3 [] is in case of PEFY-P15-63VMS1L-E

INDOOR UNIT
Ceiling Concealed Type

PEFY-P VMA(L)-E

Middle Static Pressure
35~150Pa

Slim Body
Height 250mm

With precise control of indoor temperature while operating with optimum energy usage, it offers a high-energy saving efficiency.



Compact Indoor Units

For all models, unit height are unified to 250mm. Compared to the previous model, the height size is reduced, allowing installation in tight spaces, such as ceiling cavities or drop-ceilings.



PEFY-P VMA(L)		20	25	32	40	50	63	71	80	100	125	140
Height	mm	250										
Width	mm	700			900		1,100			1,400		1,600
Depth	mm	732										

External static pressure

Five-stage external static pressure settings provide flexibility for duct extension, branching and air outlet configuration and are adjustable to meet different application conditions.

Setting ranges to a maximum of 150Pa.

External static pressure setting

Series	20	25	32	40	50	63	71	80	100	125	140
PEFY-P VMA(L)	35/50/70/100/150Pa										

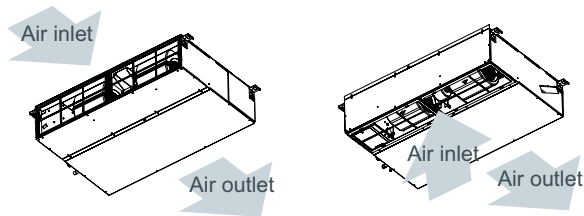
New



Air Inlet

(1) Rear inlet

(2) Bottom inlet



Drain Pump Option

The line-up consists of two types, models with or without a built-in drain pump allowing more freedom in piping layout design.



PEFY-P VMA-E Drain pump built-in



PEFY-P VMAL-E No Drain pump

* Units with a "L" at the end of the model name are not equipped with a drain pump.

Analogue input

Analogue input allows unit to control the fan speed setting in conjunction with damper condition.

IT terminal

IT terminal is available. For details, contact your local distributor.

Specifications

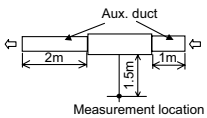
			PEFY-P20VMA(L)-E	PEFY-P25VMA(L)-E	PEFY-P32VMA(L)-E	PEFY-P40VMA(L)-E	PEFY-P50VMA(L)-E
Power source			1-phase 220-230-240V 50 / 60Hz				
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5	5.6
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100
Heating capacity (Nominal)	*2	kW	2.5	3.2	4.0	5.0	6.3
	*2	BTU/h	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling *3	kW	0.06 [0.04]	0.06 [0.04]	0.07 [0.05]	0.09 [0.07]	0.11 [0.09]
	Heating *3	kW	0.04	0.04	0.05	0.07	0.09
Current	Cooling *3	A	0.53 [0.42]	0.53 [0.42]	0.55 [0.44]	0.64 [0.53]	0.74 [0.63]
	Heating *3	A	0.42	0.42	0.44	0.53	0.63
External finish			Galvanized steel plate				
Dimension H X W X D		mm	250 X 700 X 732	250 X 700 X 732	250 X 700 X 732	250 X 900 X 732	250 X 900 X 732
		in.	9-7/8 X 27-9/16 X 28-7/8	9-7/8 X 27-9/16 X 28-7/8	9-7/8 X 27-9/16 X 28-7/8	9-7/8 X 35-7/16 X 28-7/8	9-7/8 X 35-7/16 X 28-7/8
Net weight		kg(lbs)	23 (51) [22 (49)]	23 (51) [22 (49)]	23 (51) [22 (49)]	26 (58) [25 (56)]	26 (58) [25 (56)]
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type X Quantity		Sirocco fan X 1				
	Airflow rate (Low-Mid-High)	m³/min	6.0 - 7.5 - 8.5	6.0 - 7.5 - 8.5	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0	12.0 - 14.5 - 17.0
		L/s	100 - 125 - 142	100 - 125 - 142	125 - 150 - 175	167 - 200 - 233	200 - 242 - 283
		cfm	212 - 265 - 300	212 - 265 - 300	265 - 318 - 371	353 - 424 - 494	424 - 512 - 600
	External static pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
Motor	Type		DC brushless motor				
	Output	kW	0.085	0.085	0.085	0.085	0.085
Air filter			PP honeycomb fabric.				
Refrigerant pipe diameter	Liquid (R410A) (R22,R407C)	mm(in.)	6.35 (1/4) Brazed	6.35 (1/4) Brazed	6.35 (1/4) Brazed	6.35 (1/4) Brazed	6.35 (1/4) Brazed
			6.35 (1/4) Brazed	6.35 (1/4) Brazed	6.35 (1/4) Brazed	6.35 (1/4) Brazed	9.52 (3/8) Brazed
	Gas (R410A) (R22,R407C)	mm(in.)	12.7 (1/2) Brazed	12.7 (1/20) Brazed	12.7 (1/20) Brazed	12.7 (1/20) Brazed	12.7 (1/2) Brazed
			12.7 (1/2) Brazed	12.7 (1/20) Brazed	12.7 (1/20) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	O.D.32(1-1/4)	O.D.32(1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Sound pressure level (measured in anechoic room)							
(Low-Mid-High)	*3 *5	dB(A)	26-28-29	26-28-29	28-30-34	28-30-34	28-32-35
	*3 *6	dB(A)	23-25-26	23-25-26	23-26-29	23-27-30	25-29-32

			PEFY-P63VMA(L)-E	PEFY-P71VMA(L)-E	PEFY-P80VMA(L)-E	PEFY-P100VMA(L)-E	PEFY-P125VMA(L)-E	PEFY-P140VMA(L)-E
Power source			1-phase 220-230-240V 50 / 60Hz					
Cooling capacity (Nominal)	*1	kW	7.1	8.0	9.0	11.2	14.0	16.0
	*1	BTU/h	24,200	27,300	30,700	38,200	47,800	54,600
Heating capacity (Nominal)	*2	kW	8.0	9.0	10.0	12.5	16.0	18.0
	*2	BTU/h	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	Cooling *3	kW	0.12 [0.10]	0.14 [0.12]	0.14 [0.12]	0.24 [0.22]	0.34 [0.32]	0.36 [0.34]
	Heating *3	kW	0.10	0.12	0.12	0.22	0.32	0.34
Current	Cooling *3	A	1.01 [0.90]	1.15 [1.04]	1.15 [1.04]	1.47 [1.36]	2.05 [1.94]	2.21 [2.10]
	Heating *3	A	0.90	1.04	1.04	1.36	1.94	2.10
External finish			Galvanized steel plate					
Dimension H X W X D		mm	250 X 1,100 X 732	250 X 1,100 X 732	250 X 1,100 X 732	250 X 1,400 X 732	250 X 1,400 X 732	250 X 1,600 X 732
		in.	9-7/8 X 43-5/16 X 28-7/8	9-7/8 X 43-5/16 X 28-7/8	9-7/8 X 43-5/16 X 28-7/8	9-7/8 X 55-1/8 X 28-7/8	9-7/8 X 55-1/8 X 28-7/8	9-7/8 X 63X 28-7/8
Net weight		kg(lbs)	32 (71) [31 (69)]	32 (71) [31 (69)]	32 (71) [31 (69)]	42 (93) [41 (91)]	42 (93) [41 (91)]	46 (102) [45 (10)]
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type X Quantity		Sirocco fan X 2					
	Airflow rate (Low-Mid-High)	m³/min	13.5 - 16.0 - 19.0	14.5 - 18.0 - 21.0	14.5 - 18.0 - 21.0	23.0 - 28.0 - 33.0	28.0 - 34.0 - 40.0	29.5 - 35.5 - 42.0
		L/s	225 - 267 - 317	242 - 300 - 350	242 - 300 - 350	383 - 467 - 550	467 - 567 - 667	492 - 592 - 700
		cfm	477 - 565 - 671	512 - 636 - 742	512 - 636 - 742	812 - 989 - 1,165	989 - 1,201 - 1,412	1,042 - 1,254 - 1,483
External static pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	
Motor	Type		DC brushless motor					
	Output	kW	0.121	0.121	0.121	0.244	0.244	0.244
Air filter			PP honeycomb fabric.					
Refrigerant pipe diameter	Liquid (R410A) (R22,R407C)	mm(in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed
			9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas (R410A) (R22,R407C)	mm(in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
			15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)		O.D.32 (1-1/4)		O.D.32 (1-1/4)	
Sound pressure level (measured in anechoic room)								
(Low-Mid-High)	*3	*5	dB(A)	29-32-36	30-34-38	30-34-38	32-37-41	35-40-44
	*3	*6	dB(A)	25-29-33	26-29-34	26-29-34	28-33-37	32-36-40
								33-37-42

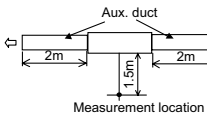
Notes:

- * [] is in case of PEFY-P VMA(L)-E
- *1 Nominal cooling conditions
Indoor: 27°CDB/19°CWB(81°FDB/66°FWB), Outdoor: 35°CDB(95°FDB)
Pipe length: 7.5m(24-9/16ft.), Level difference: 0m(0ft.)
- *2 Nominal heating conditions
Indoor: 20°CDB(68°FDB), Outdoor: 7°CDB/6°CWB(45°FDB/43°FWB)
Pipe length: 7.5m(24-9/16ft.), Level difference: 0m(0ft.)
- *3 The values are measured at the rated external static pressure.
- *4 The rated external static pressure is shown without < > .The factory setting is the rated value.

- *5 Measured in anechoic room with a 1m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



- *6 Measured in anechoic room with a 2m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



INDOOR UNIT
Ceiling concealed
type

PEFY-P VMH-E

High Static Pressure



Increased design flexibility from sufficient external static pressure allows authentic duct air-conditioning with an elegant interior layout.



Maximum external static pressure 200Pa

The additional external static pressure capacity provides flexibility for duct extension, branching and air outlet configuration.

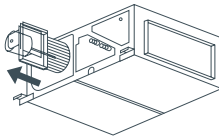
		P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
External static pressure (Pa)	220V	50/100/200									—
	230/240V	100/150/200									—
	380V	—									110/220
	400/415V	—									130/260

Reduced noise thanks to the use of
newly designed centrifugal fan

Sound pressure level table (Standard static pressure 220V)											dB(A)
Sound pressure Level	Capacity	Fan Speed	P40	P50	P63	P71	P80	P100	P125	P140	
			High	34	34	38	39	41	42	42	
			Low	27	27	32	32	35	34	34	

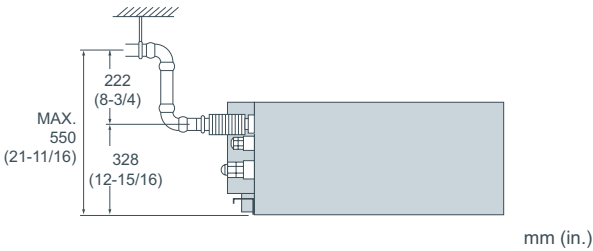
One-side maintenance

All maintenance to the unit, including fan inspection and fan motor removal, can be conducted from the inspection opening on one side.



Drain pump (option) ensures
up to 550mm (21-11/16in.) of lift

The introduction of an upper drain pump allows the drain connection to be raised as high as 550mm(21-11/16in.), allowing more freedom in piping layout design and reducing horizontal piping requirements.



► Specifications

			PEFY-P40VMH-E	PEFY-P50VMH-E	PEFY-P63VMH-E	PEFY-P71VMH-E	PEFY-P80VMH-E	PEFY-P100VMH-E	PEFY-P125VMH-E	PEFY-P140VMH-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz							
Cooling capacity	*1	kW	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
	*1	BTU/h	15,400	19,100	24,200	27,300	30,700	38,200	47,800	54,600
Heating capacity	*1	kW	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
	*1	BTU/h	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	Cooling	kW	0.19 / 0.23		0.24 / 0.30	0.26 / 0.33	0.32 / 0.40	0.48 / 0.58		0.48 / 0.59
	Heating	kW	0.19 / 0.23		0.24 / 0.30	0.26 / 0.33	0.32 / 0.40	0.48 / 0.58		0.48 / 0.59
Current	Cooling	A	0.88 / 1.06		1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34 / 2.66		2.35 / 2.70
	Heating	A	0.88 / 1.06		1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34 / 2.66		2.35 / 2.70
External finish			Galvanized							
Dimension H X W X D	mm		380 X 750 X 900			380 X 1,000 X 900		380 X 1,200 X 900		
	in.		15 X 29-9/16 X 35-7/16			15 X 39-3/8 X 35-7/16		15 X 47-1/4 X 35-7/16		
Net weight		kg(lbs)	44 (98)	45 (100)		50 (111)		70 (155)		
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)							
Fan	Type X Quantity		Sirocco fan X 1				Sirocco fan X 2			
	Airflow rate (Lo-Hi)	m³/min	10.0-14.0		13.5-19.0		15.5-22.0		26.5-38.0	
		L/s	167-233		225-317		258-367		300-417	
		cfm	353-494		477-671		547-777		636-883	
	External static pressure *2	220V	Pa				50 · 100 · 200		936-1342	
230,240V		Pa				100 · 150 · 200		989-1413		
Motor	Type		1-phase induction motor							
	Output	*3 kW	0.08		0.12	0.14	0.18	0.26		
Air filter (option)			Synthetic fiber unwoven cloth filter (long life)							
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)			ø15.88 (ø5/8)				
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)			ø9.52 (ø3/8)				
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)							
Sound pressure level (Lo-Hi)	220V	dB(A)	27-34		32-38	32-39	35-41	34-42		
	*6 230,240V	dB(A)	31-37		36-41	35-41	38-43	38-44		

			PEFY-P200VMH-E			PEFY-P250VMH-E		
Power source			3N ~ 380-415V 50Hz / 3N ~ 380-415V 60Hz					
Cooling capacity	*1	kW	22.4			28.0		
	*1	BTU/h	76,400			95,500		
Heating capacity	*1	kW	25.0			31.5		
	*1	BTU/h	85,300			107,500		
Power consumption	Cooling	kW	0.99 / 1.14			1.23 / 1.41		
	Heating	kW	0.99 / 1.14			1.23 / 1.41		
Current	Cooling	A	1.62 / 1.86			2.00 / 2.30		
	Heating	A	1.62 / 1.86			2.00 / 2.30		
External finish			Galvanized					
Dimension H X W X D	mm		470 X 1,250 X 1,120					
	in.		18-9/16 X 49-1/4 X 44-1/8					
Net weight			100 (221)					
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type X Quantity		Sirocco fan X 2					
	Airflow rate	m³/min	58.0			72.0		
		L/s	967			1200		
		cfm	2048			2543		
	External static pressure *4	380V	Pa			110 · 220		
		400,415V	Pa			130 · 260		
Motor	Type		3-phase induction motor					
	Output	*5 kW	0.76			1.08		
Air filter(option)			Synthetic fiber unwoven cloth filter (long life)					
Refrigerant pipe diameter	Gas (Brazing)	mm(in.)	ø19.05 (ø3/4)			ø22.2 (ø7/8)		
	Liquid (Brazing)	mm(in.)	ø9.52 (ø3/8)					
Field drain pipe diameter			O.D. 32 (1-1/4)					
Sound pressure level *6	380V	dB(A)	42 (110Pa) / 45 (220Pa)			50 (110Pa) / 52 (220Pa)		
	400,415V	dB(A)	44 (130Pa) / 47 (260Pa)			52 (130Pa) / 54 (260Pa)		

Notes:

- *1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor: 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB
- *2 The external static pressure is set to 100Pa (at 220V) /150Pa (at 230, 240V) at factory shipment.
- *3 The value are that at 240V.
- *4 The external static pressure is set to 220Pa (at 380V) /260Pa (at 400, 415V) at factory shipment.
- *5 The value are that at 415V.
- *6 It is measured in anechoic room.

INDOOR UNIT

Fresh Air Intake Type

PEFY-P VMH-E-F

Fresh
Air Intake

Fresh Air can be taken in with temperature control.
Ideal for Offices, Stores and Restaurants.

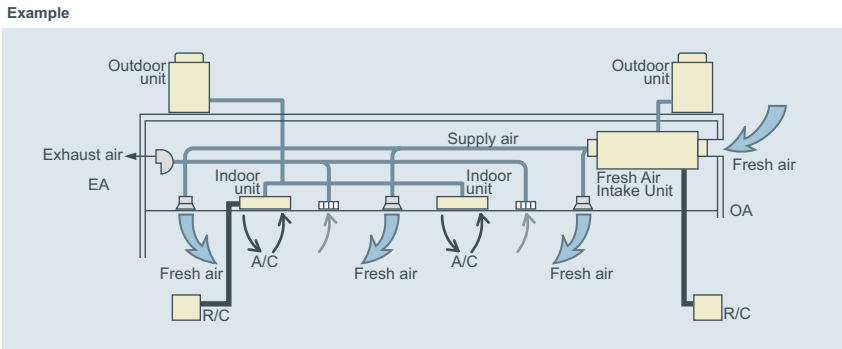


The Fresh Air intake indoor unit
can be installed in any place.

The Fresh Air intake indoor unit can take
fresh outdoor air into any building in any
place at any time.

Office, Lobby, Workshop,
Rest room, Nursing home,
Smoking corner,
Kitchen in restaurant

* Limits of capacity connectable to outdoor unit
Max. 110% of outdoor unit capacity, excepting heating at outdoor temperature of less than -5°C(23°F) (100%).



< Note >
Fan remains in operation during Thermo-OFF. Using this model with other type of
indoor unit is recommended to prevent cold draft which is caused due to intaken fresh
air.

► Specifications

				PEFY-P80VMH-E-F		PEFY-P140VMH-E-F	
Power source				1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz			
Cooling capacity	*1	kW		9.0		16.0	
	*1	BTU/h		30,700		54,600	
Heating capacity	*1	kW		8.5		15.1	
	*1	BTU/h		29,000		51,500	
Power consumption	Cooling	kW		0.16 / 0.21		0.29 / 0.33	
	Heating	kW		0.16 / 0.21		0.29 / 0.33	
Current	Cooling	A		0.67 / 0.91		1.24 / 1.48	
	Heating	A		0.67 / 0.91		1.24 / 1.48	
External finish				Galvanized			
Dimension		mm(in.)		380 X 1000 X 900		380 X 1200 X 900	
H X W X D				(15 X 39-3/8 X 35-7/16)		(15 X 47-1/4 X 35-7/16)	
Net weight		kg(lbs)		50 (111)		70 (155)	
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type X Quauity			Sirocco fan X 1		Sirocco fan X 2	
	Airflow rate		m³/min	9.0		18.0	
			L/s	150		300	
			cfm	18		636	
	External static pressure (Lo-Mid-Hi)	208V	Pa	35 - 85 - 170		35 - 85 - 170	
		220V	Pa	40 - 115 - 190		50 - 115 - 190	
		230V	Pa	50 - 130 - 210		60 - 130 - 220	
		240V	Pa	80 - 170 - 220		100 - 170 - 240	
Motor	Type		1-phase induction motor				
	Output		kW	0.09 (at 220V)		0.14 (at 220V)	
Air filter (option)				Synthetic fiber unwoven cloth filter (long life)			
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø15.88 (ø5/8)				
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)				
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)				
Sound pressure level *2 (Lo-Mid-Hi)	208, 220V	dB(A)	27 - 38 - 43		28 - 38 - 43		
	230, 240V	dB(A)	33 - 43 - 45		34 - 43 - 45		

				PEFY-P200VMH-E-F		PEFY-P250 VMH-E-F	
Power source				3N~ 380-415V 50Hz / 3N~ 380-415V 60Hz			
Cooling capacity		kW		22.4		28.0	
		BTU/h		76,400		95,500	
Heating capacity		kW		21.2		26.5	
		BTU/h		72,300		90,400	
Power consumption	Cooling	kW		0.34 / 0.42		0.39 / 0.50	
	Heating	kW		0.34 / 0.42		0.39 / 0.50	
Current	Cooling	A		0.58 / 0.74		0.68 / 0.86	
	Heating	A		0.58 / 0.74		0.68 / 0.86	
External finish				Galvanized			
Dimension		mm(in.)		470 X 1250 X 1120			
H X W X D				(18-9/16 X 49-1/4 X 44-1/8)			
Net weight		kg(lbs)		100 (221)			
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type X Quauity			Sirocco fan X 2			
	Airflow rate		m³/min	28		35	
			L/s	467		583	
			cfm	989		1236	
	External static pressure	380V	Pa	140 / 200		110 / 190	
		400V	Pa	150 / 210		120 / 200	
		415V	Pa	160 / 220		130 / 210	
Motor	Type		3-phase induction motor				
	Output		kW	0.20		0.23	
Air filter (option)				Synthetic fiber unmoven cloth filter (long life type)			
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø19.05 (ø3/4)		ø22.2 (ø7/8)		
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)				
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)				
Sound pressure level *2	380V	dB(A)	39 / 42		40 / 44		
	400V	dB(A)	40 / 43		40 / 45		
	415V	dB(A)	40 / 44		41 / 46		

Notes:

- The cooling and heating capacities are the maximum capacities that were obtained by operating in the above air conditions and with a refrigerant pipe of about 7.5m.
- The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical information.
- The operating noise is the data that was obtained by measuring it 1.5m from the bottom of the unit in an anechoic room. (Noise meter A-scale value)
- The figure of Electrical characteristic indicates at 240V 50Hz/230V 60Hz (PEFY-P80, 140VMH-E-F type), at 220Pa setting at 415V (PEFY-P200, 250VMH-E-F type).
- When the 100% fresh air indoor units are connected, the maximum connectable indoor units to 1 outdoor unit are as follows

Heat pump models	Cooling only
110%(100% in case of heating below -5°C(23°F))	110%

- Operational temp range is (Cooling : from 21°C(70°F)DB/15.5°C(60°F)WB to 43°C(109°F)DB/35°C(95°F)WB)
Heating : from -10°C(14°F)DB to 20°C(68°F)DB

* Thermo off(Fan) operation automatically starts either when temperature is lower than 21°C(70°F)DB in cooling mode or when the temperature exceeds 20°C(68°F)DB in heating mode.

- As the room temp in sensed by the thermo in the remote controller or the one in the room, be sure to use either remote controller or room thermo.
- Autochangeover function or Dry mode is NOT available. Fan mode operation during the thermo off in Cooling/Heating mode.
- In any case, the air flow rate should be kept lower than 110% of the above chart. Please see "Fan curves" for the details.
- When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation.
Please be careful when positioning indoor unit air outlet grilles, ie take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Air filter must be installed in the air intake side. The filter should be attached where easy maintenance is possible in case of usage of fild supply filters.
- Long life cannot be used with Hi-efficiency filter together (PEFY-P80 - 140VMH-E-F type).

INDOOR UNIT
Ceiling suspended type

PCFY-P VKM-E

Designed for ultra-quiet operation and easy maintenance,
provides exceptionally comfortable air-conditioning.



Extra slim, extra stylish

Sleek and slim with stylishly curved lines, the PCFY series blends right into any interior. It also features a single air outlet which allows the auto vane to act as a shutter when the unit is turned off.

Auto vane distributes air evenly

The auto vane swings up and down automatically to distribute air more evenly to every corner of the room.

Long life filter as standard

Long life filter is equipped as standard enabling up to 2,500 hours of operation (office use) without maintenance.

Keeps airflow at optimum level
according to ceiling height

The most suitable airflow can be selected for ceilings up to 4.2m high, enhancing air-conditioning efficiency and comfort. (P100/P125)

	Standard	High ceiling
Ceiling height	3.0(9-13/16)	4.2(13-3/4)

m (ft)

Greatly simplified installation

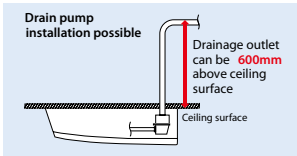
The direct suspension system eliminates the task of removing the attachment fixture from the main unit, greatly shortening installation time.

New



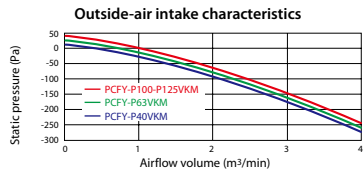
Drain pump option available with all models

The pumping height of the optional drain pump has been increased from 400 mm to 600 mm, expanding flexibility in choosing unit location during installation work.



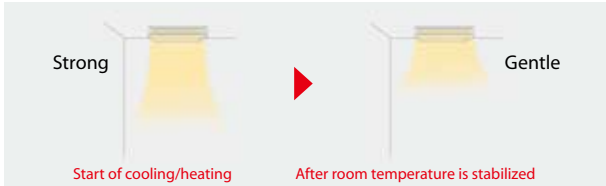
Outside-air intake

Units are equipped with a knock-out hole that enables the induction of fresh outside-air.



Equipped with automatic air-speed adjustment

In addition to the conventional 4-speed setting, units are now equipped with an automatic air-speed adjustment mode. This setting automatically adjusts the air-speed to conditions that match the room environment. At the start of heating/cooling operation, the airflow is set to high-speed to quickly heat/cool the room. When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable comfortable heating/cooling operation.



► Specifications

			PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity	*1	kW	4.5	7.1	11.2	14.0
	*1	BTU/h	15,400	24,200	38,200	47,800
Heating capacity	*1	kW	5.0	8.0	12.5	16.0
	*1	BTU/h	17,100	27,300	42,700	54,600
Power consumption	Cooling	kW	0.04	0.05	0.09	0.11
	Heating	kW	0.04	0.05	0.09	0.11
Current	Cooling	A	0.28	0.33	0.65	0.76
	Heating	A	0.28	0.33	0.65	0.76
External finish(Munsell No.)			6.4Y 8.9 / 0.4			
Dimension H X W X D	mm		230 X 960 X 680	230 X 1,280 X 680	230 X 1,600 X 680	
	in.		9-1/16 X 37-13/16 X 26-3/4	9-1/16 X 50-3/8 X 26-3/4	9-1/16 X 63 X 26-3/4	
Net weight		kg(lbs)	24(53)	32 (71)	36 (79)	38 (84)
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type X Quantity		Sirocco fan X 2	Sirocco fan X 3	Sirocco fan X 4	
	Airflow rate *2 (Lo-Mid2-Mid1-Hi)	m³/min	10-11-12-13	14-15-16-18	21-24-26-28	21-24-27-31
		L/s	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517
		cfm	353-388-424-459	494-530-565-636	742-847-918-989	742-847-953-1,095
	External static pressure		Pa			
Motor	Type		DC motor			
	Output	kW	0.090	0.095	0.160	
Air filter			PP Honeycomb (long life)			
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)		
Field drain pipe diameter		mm(in.)	O.D. 26 (1)			
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	29-32-34-36			

Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(80.6°F)DB/19°C(66.2°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(44.6°F)DB/6°C(42.8°F)WB
- *2 Airflow rate/Sound pressure level are shown in (low-middle 2-middle 1-high).
- *3 It is measured in anechoic room.

INDOOR UNIT
Wall mounted type

PKFY-P VBM-E
PKFY-P VHM-E
PKFY-P VKM-E

Elegant Design and Compact Dimensions Ideal for Offices,
Stores and Residential Uses.



Capacity range

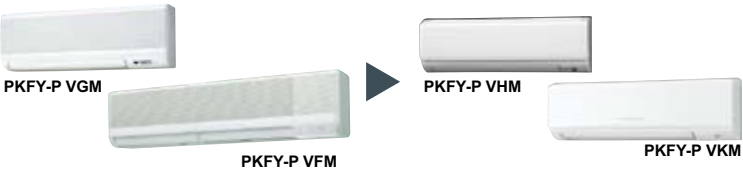
Capacity	P15	P20	P25	P32	P40	P50	P63	P100
VBM								
VHM								
VKM								

4-way piping provides more flexibility in selecting installation sites

All piping including drainage can be connected from the rear, right, base, and left of the unit, providing much greater flexibility in piping and selecting installation site.

Flat panel & Pure white finish

All models have changed from the grill design, adopting the flat panel layout. Pursuing a design that harmonizes with virtually any interior, the unit color has been changed from white to pure white.



Built-in signal receiver

PKFY-P VBM features

Compact profile

Quiet operation

PKFY-P VHM features

Compact size of 898mm

Width size reduced to match small size buildings and offices.



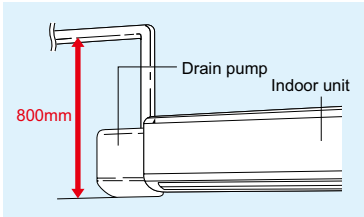
Comparison with PKFY-P VGM-E

Light unit

Approx. 3kg reduced from conventional model (P32-50). Easier installation.

Drain pump (option)

The optional drain pump allows the drain connection to be raised as high as 800mm, allowing more freedom in piping layout design.



► Specifications

			PKFY-P15VBM-E	PKFY-P20VBM-E	PKFY-P25VBM-E	PKFY-P32VHM-E	PKFY-P40VHM-E	PKFY-P50VHM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz					
Cooling capacity	*1	kW	1.7	2.2	2.8	3.6	4.5	5.6
	*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100
Heating capacity	*1	kW	1.9	2.5	3.2	4.0	5.0	6.3
	*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling *4	kW	0.04			0.04		
	Heating	kW	0.04			0.03		
Current	Cooling *4	A	0.20			0.40		
	Heating	A	0.20			0.30		
External finish(Munsell No.)			Plastic (1.0Y 9.2/0.2)			Plastic (1.0Y 9.2/0.2)		
Dimension H X W X D		mm(in.)	295 X 815 X 225 (11-5/8 X 32-1/8 X 8-7/8)			295 X 898 X 249(11-5/8 X 35-3/8 X 9-13/16)		
Net weight		kg(lbs)	10 (23)			13(29)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type X Quantity		Line flow fan X 1					
	Airflow rate *2 (Lo-Mid2-Mid1-Hi)	m³/min	4.9-5.0-5.2-5.3	4.9-5.2-5.6-5.9		9-10-11	9-10.5-11.5	9-10.5-12
		L/s	82-83-87-88	82-87-93-98		150-167-183	150-175-192	150-175-200
		cfm	173-177-184-187	173-184-198-208		318-353-388	318-371-406	318-371-424
External static pressure		Pa	0					
Motor	Type		1-phase induction motor			DC motor		
	Output	kW	0.017			0.030		
Air filter			PP Honeycomb					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)
Field drain pipe diameter		mm(in.)	I.D.16 (5/8)					
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	29-31-32-33	29-31-34-36		34-37-41	34-38-41	34-39-43

Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- *2 Airflow rate/Sound pressure level are in (low-middle2-middle1-high).
- *3 It is measured in anechoic room.
- *4 Electrical characteristic of cooling are included optional drain-pump.

			PKFY-P63VKM-E	PKFY-P100VKM-E
Power source			1-phase 220-230-240V 50Hz / 1-phase 220V 60Hz	
Cooling capacity	*1	kW	7.1	11.2
	*1	BTU/h	24,200	38,200
Heating capacity	*1	kW	8.0	12.5
	*1	BTU/h	27,300	42,600
Power consumption	Cooling *4	kW	0.05	0.08
	Heating	kW	0.04	0.07
Current	Cooling *4	A	0.37	0.58
	Heating	A	0.30	0.51
External finish(Munsell No.)			Plastic (1.0Y 9.2/0.2)	
Dimension H X W X D			mm(in.) 365 X 1,170 X 295 (14-3/8 X 46-1/16 X 11-5/8)	
Net weight		kg(lbs)	21 (46)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	
Fan	Type X Quantity		Line flow fan X 1	
	Airflow rate *2 (Lo-Hi)	m³/min	16-20	20-26
		L/s	267-333	333-433
		cfm	565-706	706-918
	External static pressure	Pa	0	
Motor	Type		DC motor	
	Output	kW	0.056	
Air filter			PP Honeycomb	
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	I.D. 16(5/8)	
Sound pressure level (Lo-Hi) *2 *3		dB(A)	39-45	41-49

Notes:

- *1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor : 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB
- *2 Airflow rate/Sound pressure level are in (low-high).
- *3 It is measured in anechoic room.
- *4 Electrical characteristic of cooling are included optional drain-pump.

INDOOR UNIT
Floor standing exposed

PFFY-P VLEM-E



Floor mounted lowboy type effective in perimeter zone.



Standardized design with mild lines.
Supports various types of spaces from office buildings and shop buildings to hospitals.
Water vapor permeable film humidifier can be installed.
Remote controller can be installed onto the main unit.

Compact unit for easy air conditioning in perimeter zone.

The compact body of 220mm(8-11/16in.) in depth can be easily installed in the perimeter zone for effective air conditioning in the perimeter zone.

Electronics dry function dehumidify refreshingly.

Optimum dehumidification depending on indoor temperature to prevent over-cooling. Refreshing dehumidification can be attained.

► Specifications

			PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E	PFFY-P50VLEM-E	PFFY-P63VLEM-E	
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz						
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1	
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200	
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0	
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300	
Power consumption	Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11	
	Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11	
Current	Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47	
	Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47	
External finish(Munsell No.)			Acrylic paint (5Y 8/1)						
Dimension	H X W X D	mm	630 X 1,050 X 220			630 X 1,170 X 220		630 X 1,410 X 220	
		in.	24-13/16 X 41-3/8 X 8-11/16			24-13/16 X 46-1/8 X 8-11/16		24-13/16 X 55-9/16 X 8-11/16	
Net weight		kg(lbs)	23 (51)			25 (56)	26 (58)	30 (67)	32 (71)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)						
Fan	Type X Quantity		Sirocco fan X 1			Sirocco fan X 2			
	Airflow rate (Lo-Hi)	m³/min	5.5-6.5			7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
		L/s	92-108			117-150	150-183	200-233	200-258
		cfm	194-230			247-318	318-388	424-494	424-547
	External static pressure		0						
Motor	Type		1-phase induction motor						
	Output	kW	0.015			0.018	0.030	0.035	0.050
Air filter			PP Honeycomb fabric (washable)						
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)	
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>						
Sound pressure level (Lo-Hi) *2 *3 *4		dB(A)	34-40		35-40	38-43		40-46	

Notes:

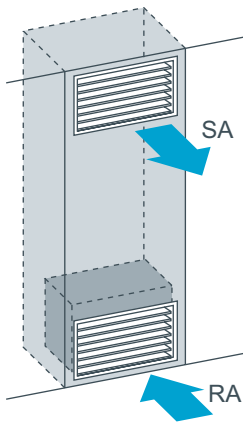
- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- *2 Air flow rate/Sound pressure level are in (Low-High)
- *3 Measured point : 1m X 1m, Power supply : AC240V/50Hz
· 1dB(A) lower at AC230V/50Hz
· 2dB(A) lower at AC220V/50Hz
· 3dB(A) lower at 1.5m X 1.5m point
- *4 It is measured in anechoic room.

INDOOR UNIT
Floor mounted concealed type

PFFY-P VLRM-E
PFFY-P VLRMM-E New



Neatly installed with pericover concealed.
Easy installation in perimeter zone.



installation image
(PFFY-P VLRMM-E)

Compact unit for easy air conditioning in perimeter zone.

The body is concealed in the pericover to pursue harmony with the interior.
The compact body of 220mm(8-11/16in.) in depth can be easily installed in the perimeter zone.

Electronics dry function dehumidify refreshingly to prevent over-cooling.

Optimum dehumidification depending on indoor temperature to prevent over-cooling. Refreshing dehumidification can be attained.

Maximum external static pressure 60Pa (VLRMM model)

The additional external static pressure capacity provides flexibility for duct extension, branching, and air outlet configuration.

► Specifications

			PFFY-P20VLRM-E	PFFY-P25VLRM-E	PFFY-P32VLRM-E	PFFY-P40VLRM-E	PFFY-P50VLRM-E	PFFY-P63VLRM-E
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
	Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current	Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
	Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsell No.)			Galvanized steel plate					
Dimension H X W X D	mm		639 X 886 X 220		639 X 1,006 X 220		639 X 1,246 X 220	
	in.		25-3/16 X 34-15/16 X 8-11/16		25-3/16 X 39-5/8 X 8-11/16		25-3/16 X 49-1/16 X 8-11/16	
Net weight		kg(lbs)	18.5 (41)		20 (45) 21 (47)		25 (56) 27 (60)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type X Quauity		Sirocco fan X 1			Sirocco fan X 2		
	Airflow rate *2 (Lo-Hi)	m³/min	5.5-6.5			7.0-9.0 9.0-11.0		
		L/s	92-108			117-150 150-183		
		cfm	194-230			247-318 318-388		
	External static pressure		Pa		0 424-494 424-547			
Motor			1-phase induction motor					
Output		kW	0.015		0.018	0.030	0.035	0.050
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (top end :O.D.20)>					
Sound pressure level (Lo-Hi) *2 *3 *4		dB(A)	34-40		35-40	38-43		40-46

Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- *2 Air flow rate/sound pressure level are in (Low-High)
- *3 Measured point : 1m X 1m, Power supply : AC240V/50Hz
· 1dB(A) lower at AC230V/50Hz
· 2dB(A) lower at AC220V/50Hz
· 3dB(A) lower at 1.5m X 1.5m point
- *4 It is measured in anechoic room.

			PFFY-P20VLRMM-E	PFFY-P25VLRMM-E	PFFY-P32VLRMM-E	PFFY-P40VLRMM-E	PFFY-P50VLRMM-E	PFFY-P63VLRMM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04		0.04	0.05	0.05	0.07
	Heating	kW	0.04		0.04	0.05	0.05	0.07
Current	Cooling	A	0.34		0.38	0.43	0.48	0.59
	Heating	A	0.34		0.38	0.43	0.48	0.59
External finish(Munsell No.)			Galvanized steel plate					
Dimension H X W X D			mm	639 X 886 X 220		639 X 1,006 X 220		639 X 1,246 X 220
			in.	25-3/16 X 34-15/16 X 8-11/16		25-3/16 X 39-5/8 X 8-11/16		25-3/16 X 49-1/16 X 8-11/16
Net weight			kg(lbs)		18.5 (41)		20 (45)	21 (47)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type X Quauity		Sirocco fan X 1			Sirocco fan X 2		
	Airflow rate (Lo-Mid-Hi)	m³/min	4.5-5.5-6.5			6.5-7.5-9.0		8.0-9.5-11.0
		L/s	75-92-108			108-125-150		133-158-183
		cfm	159-194-230			167-200-233		183-217-258
External static pressure *2			Pa		20/40/60			
Motor	Type		DC brushless motor					
	Output		kW		0.096			
Air filter			PP Honeycomb fabric (washable)					
Refrigerant	Gas	mm(in.)	ø12.7 (ø1/2) Brazed					ø15.88 (ø5/8) Brazed
pipe diameter	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed					ø9.52 (ø3/8) Brazed
Field drain pipe diameter			mm(in.)					
			I.D.26 (1) <Accessory hose O.D.27 (top end :O.D.20)>					
Sound pressure level (Lo-Mid-Hi) *3	20Pa	dB(A)	31-36-40		27-32-37	30-36-40	32-37-41	35-40-44
	40Pa	dB(A)	34-39-42		30-35-41	32-38-42	35-40-44	36-42-47
	60Pa	dB(A)	35-40-43		32-37-42	35-39-44	36-41-45	38-43-48

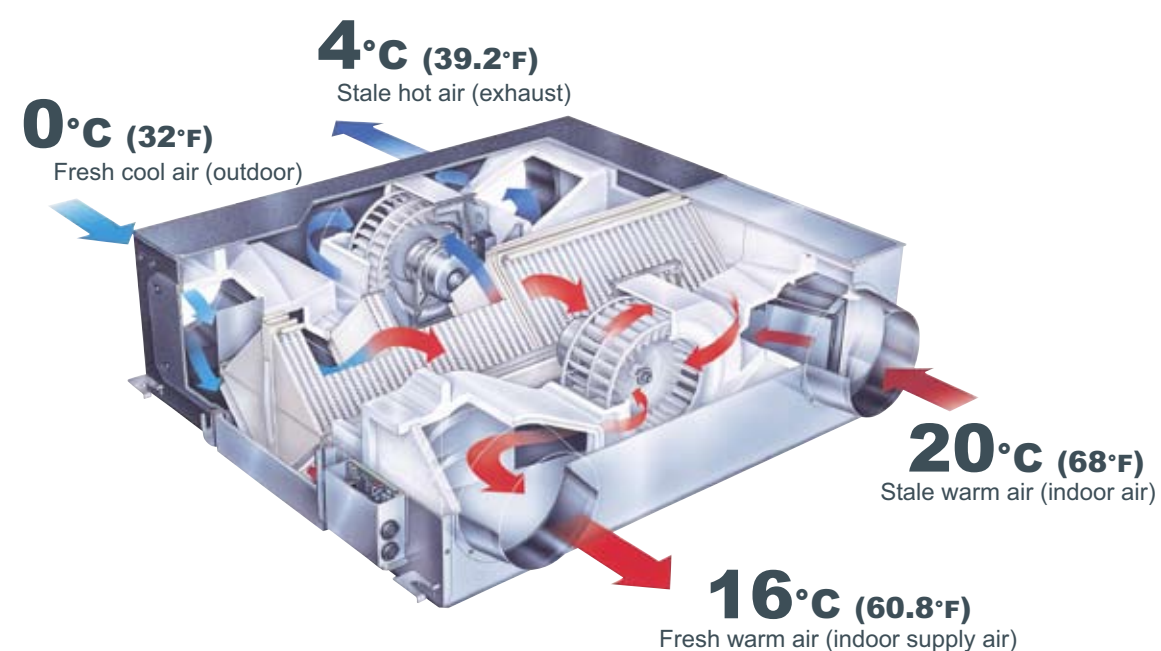
Notes:

- *1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
pipe length : 7.5m(24-9/16ft) Height difference : 0m(0ft)
- *2 The external static pressure is set to 20Pa at factory shipment.
- *3 The sound pressure level in operation is measured at 1m apart from the front side and the bottom side of the unit in anechoic room.
(Noise meter A-scale value) Connect the duct of 1m in length to the air outlet.



The Ventilation System for Enhanced Air Quality - Lossnay

Combine with Lossnay Ventilation System Enhanced Air Quality.
Unified Control System Allows Greater Design Freedom.



LGH-15RXs [150m³/h Single phase 220-240V 60Hz]
LGH-25RXs [250m³/h Single phase 220-240V 60Hz]
LGH-35RXs [350m³/h Single phase 220-240V 60Hz]
LGH-50RXs [500m³/h Single phase 220-240V 60Hz]
LGH-65RXs [650m³/h Single phase 220-240V 60Hz]

LGH-80RXs [800m³/h Single phase 220-240V 60Hz]
LGH-100RXs [1000m³/h Single phase 220-240V 60Hz]
LGH-150RXs [1500m³/h Single phase 220-240V 60Hz]
LGH-200RXs [2000m³/h Single phase 220-240V 60Hz]

Heat-Exchange Efficiency Obtainable Only with Lossnay.

The secret to the unmatched comfort provided by Lossnay core is the cross-flow, plate-fin structure off the heat-exchange unit. A diaphragm made of a specially processed paper fully separates inducted and exhausted air supplies, ensuring that only fresh air is introduced to the indoor environment.

The superior heat-transfer and moisture permeability of the special paper assure highly effective total heat exchange (temperature and humidity) when inducted and exhausted air supplies cross in the Lossnay core.

LOSSNAY Technology

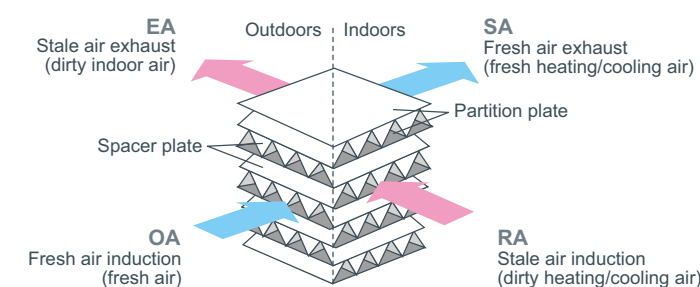
• Two paths ventilation

LOSSNAY simultaneously intakes Fresh Air and exhausts Dirty Air.

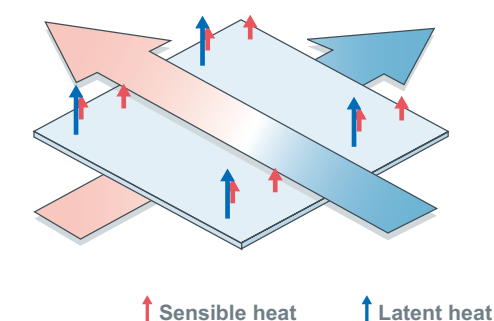
• Total energy recover

LOSSNAY returns BOTH sensible heat and latent heat.

A. Two paths ventilation

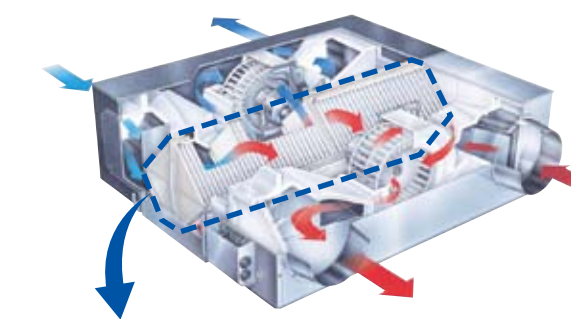


B. Total Energy transfer



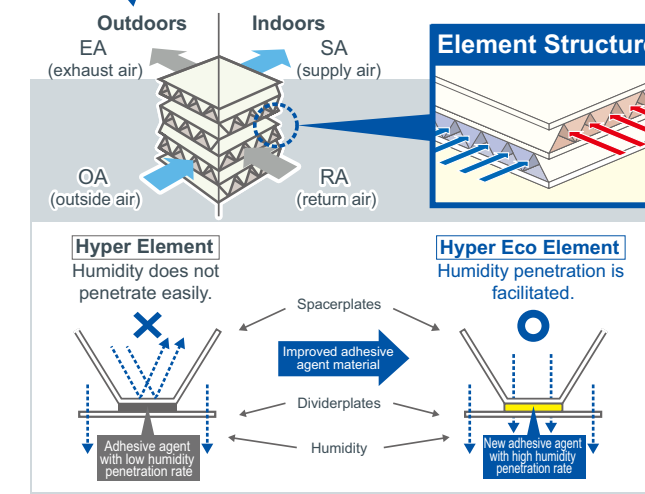
• Hyper Eco Core

Better energy conservation by improved total heat exchange efficiency.

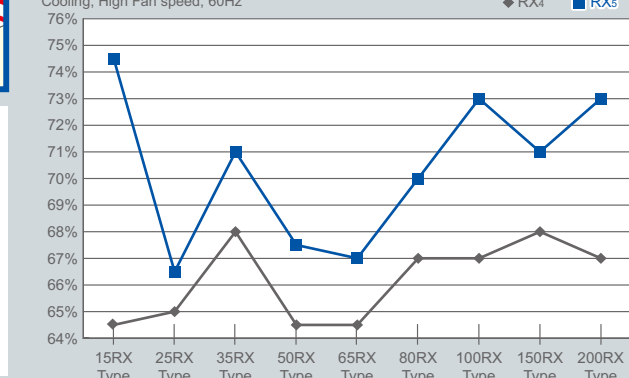


Introducing the new Hyper Eco Element

Mitsubishi's newly developed Hyper Eco Element is on board, offering the industry's best total heat exchange efficiency. Energy conservation performance has been improved not only by reducing the air conditioning load associated with ventilation, but also by facilitating humidity penetration.

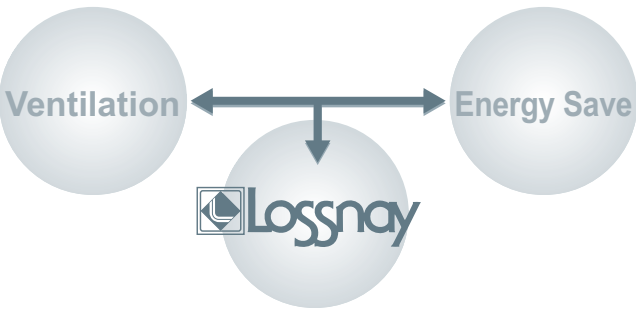


Enthalpy exchange efficiency improve
*Cooling, High Fan speed, 60Hz



Why LOSSNAY is necessary.

- **Without ventilation...**
Lack of Ventilation makes people sick by dirty indoor air including CO₂, Dust, Bacteria.
- **If just opening windows...**
Opening windows eliminates dirty air BUT wastes much air-con energy.
- **So we recommend LOSSNAY**
LOSSNAY is simultaneous pursuit of Ventilation and Energy Saving.

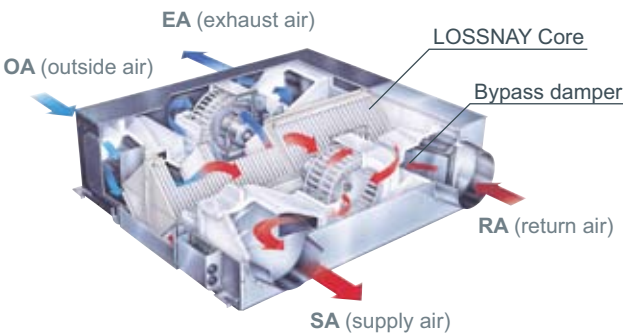


• This is LOSSNAY !

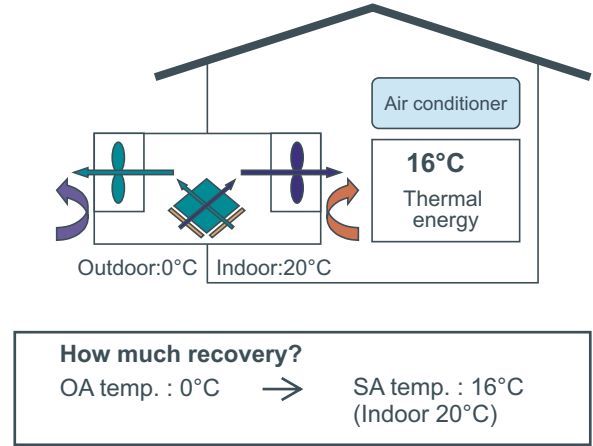
ADVANTAGES

- Clean air supply, dirty air exhaust** by Two air paths (OA → SA and RA → EA)
- Energy recovery** by LOSSNAY Core
- Free cooling** by bypass damper
- MULTI VENTILATION MODE** for multi ventilation request (Power supply, Power supply/exhaust, Power exhaust)

UNIT STRUCTURE



Energy Recovery Image

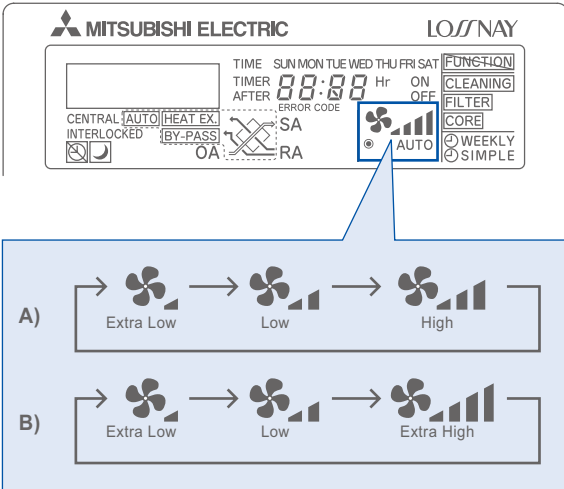


How much recovery?
OA temp. : 0°C → SA temp. : 16°C (Indoor 20°C)

Extra Low Mode

- Additional energy conservation by using a four-level air volume system that allows more precise control.

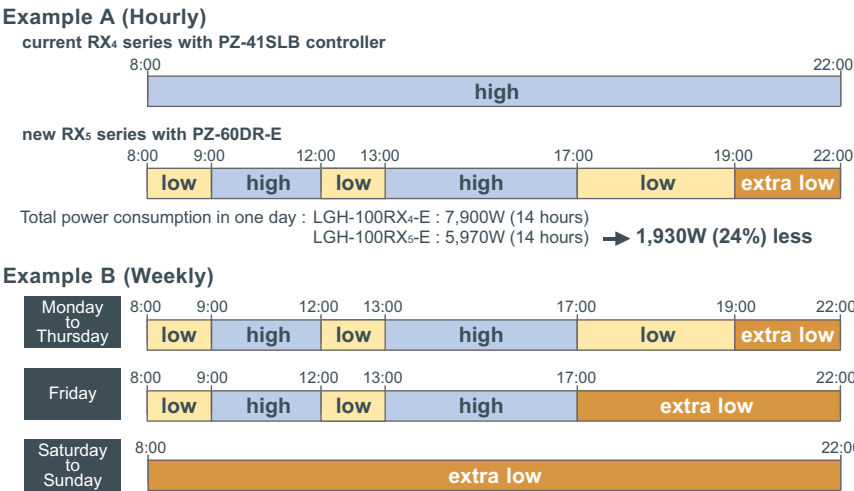
In addition to the conventional Extra High, High, and Low modes, an Extra Low mode is added to provide a more dynamic range of air volume settings and versatility in a variety of installation environments, yielding much better energy conservation. Using a simplified timer function, it switches to Extra Low operation when the operation stop button is activated and it is accordingly possible to implement 24-hour energy conservation ventilation.



* The Extra High and High ventilation modes are selectable by the initial setting.
* Extra-Low not equipped LGH-150RXs and 200RXs.
* The ventilation mode is actually selected in three levels, and the remote controller also displays these three levels.

Energy Saving by WEEKLY timer

Air volume level can be set hourly (max 8 times) and weekly. You can pre-set air volume according to the predictable requirement so that LOSSNAY can automatically operate at only necessary air-speed at the specified time period, which saves power consumption while maintaining the indoor air quality. Besides, once the weekly timer has been set, no switching on-off is required.



New function: "By-pass" Ventilation External Control Setting

In addition to the automatic damper open/close function, open/close control via external devices is now possible, delivering a "By-pass" ventilation system that is suitable to the installed environment.

Establish the wire connection by inserting the optional remote display adaptor (PAC-SA88HA-E) in the connector CN16 (Ventilation mode selector).

With SW1 is "ON", the ventilation mode of LOSSNAY is changed to the By-pass ventilation regardless of the setting on the remote controller.

•Automatic ventilation setting

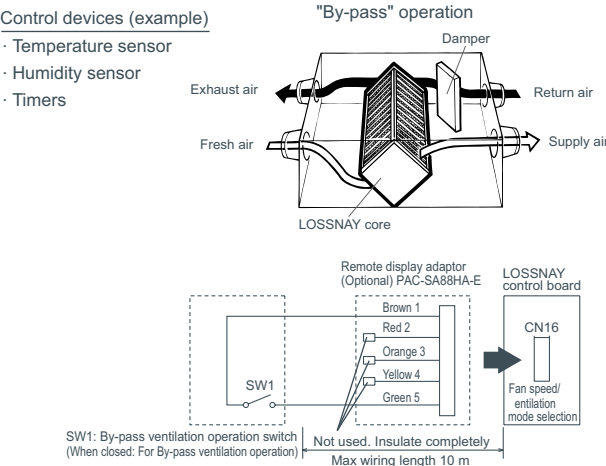
The automatic damper mode automatically provides the correct ventilation for the conditions in the room. The following shows the effect "By-pass" ventilation will have under various conditions.

1. Reduces cooling load

If the air outside is cooler than the air inside the building during the cooling season (such as early morning or at night), "By-pass" ventilation will draw in the cooler outside air and reduce the cooling load on the system.

Control devices (example)

- Temperature sensor
- Humidity sensor
- Timers



2. Night purge

"By-pass" ventilation can be used to release hot air from inside the building that has accumulated in buildings a business district during the hot summer season.

3. Office equipment room cooling

During cold season, fresh air can be drawn in and used as is to cool rooms where the temperature has risen due to the use of office equipment.

* When the outdoor air temperature drops lower than 8°C it changes to the heat exchange ventilation. (Display of the remote controller does not change.)

* In the case of "By-pass" ventilation, the supply air temperature slightly rises more than the outside air temperature because of the heat effect around the ducts or the unit motors.

Model line up

■ Appearance

LGH-15~100RX5-E60



LGH-150 / 200RX5-E60

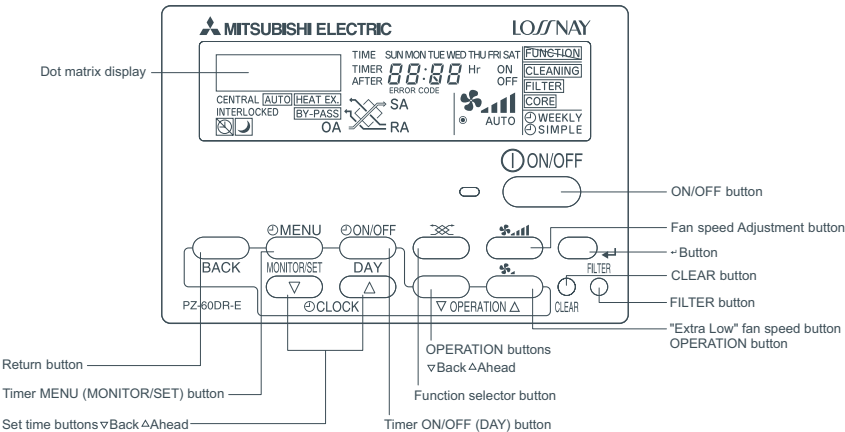


New Remote Controller PZ-60DR-E

A new remote controller for the RX₅ series is now available. In addition to boosting the energy conservation performance of the main unit, the remote controller features a variety of new functions which also pursue additional energy conservation. The appearance of the remote controller conforms to Mitsubishi air conditioner interface design standards.

Functions that were set using Dip-Switch on the LOSSNAY main unit can now be configured as needed using the new remote controller. This eliminates the need to crawl under the eaves to change operation settings.

Also, a newly adopted dot matrix display provides much more information, making it easy to check maintenance indications, operation status display, and explanations required when configuring settings.



Model line up

■ Specification

LGH-15RXs-E60

Model		LGH-15RXs							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		0.54-0.56	0.45-0.46	0.28-0.3	0.15-0.16	0.54-0.57	0.45-0.47	0.28-0.3	0.15-0.16
Power consumption (W)		118-134	98-109	61-69	32-37	117-135	97-112	61-69	32-37
Air volume	(m³/h)	150	150	110	60	150	150	110	60
	(L/s)	42	42	31	17	42	42	31	17
External static pressure	(mmHzO)	14.8	10.7	5.6	1.6	14.8	10.7	5.6	1.6
	(Pa)	145	105	55	16	145	105	55	16
Temperature exchange efficiency (%)		80.0	80.0	82.0	85.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	73.5	73.5	76.5	81.5	—	—	—	—
	Cooling	74.5	74.5	78.5	82.0	—	—	—	—
Noise (dB) <small>(Measured at 1.5m under the center of panel in an anechoic chamber)</small>		29.5-31	27-29	21.5-22.5	18-18	29.5-31	27-29	22-23.5	18-19
Weight (kg)		20							
Starting current		Under 0.9A Less							

*The Air outlets noise (45° angle,1.5meters in front of the unit) is about 6dB greater than the indicated value.(at High Fan speed)

LGH-25RXs-E60

Model		LGH-25RXs							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		0.61-0.64	0.54-0.56	0.28-0.3	0.17-0.18	0.62-0.65	0.55-0.57	0.28-0.3	0.17-0.18
Power consumption (W)		132-150	118-134	61-70	37-42	134-152	119-135	61-70	37-42
Air volume	(m³/h)	250	250	145	95	250	250	145	95
	(L/s)	69	69	40	26	69	69	40	26
External static pressure	(mmHzO)	11.7	7.6	2.5	1.0	11.7	7.6	2.5	1.0
	(Pa)	115	75	25	10	115	75	25	10
Temperature exchange efficiency (%)		73.0	73.0	79.5	82.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	63.5	63.5	73.0	78.0	—	—	—	—
	Cooling	66.5	66.5	75.0	78.0	—	—	—	—
Noise (dB) <small>(Measured at 1.5m under the center of panel in an anechoic chamber)</small>		27.5-29	25.5-27	20-21	18-18	28-29.5	26-27.5	20.5-21	18-18
Weight (kg)		20							
Starting current		Under 1.0A Less							

*The Air outlets noise (45° angle,1.5meters in front of the unit) is about 10dB greater than the indicated value.(at High Fan speed)

LGH-35RXs-E60

Model		LGH-35RXs							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		1.02-1.02	0.93-0.96	0.65-0.68	0.29-0.31	1.02-1.02	0.94-0.97	0.65-0.68	0.29-0.31
Power consumption (W)		222-241	202-229	141-162	62-73	222-241	204-231	141-162	62-73
Air volume	(m³/h)	350	350	255	115	350	350	255	115
	(L/s)	97	97	71	32	97	97	71	32
External static pressure	(mmHzO)	19.4	7.6	4.1	0.8	19.4	7.6	4.1	0.8
	(Pa)	190	75	40	8	190	75	40	8
Temperature exchange efficiency (%)		75.0	75.0	80.5	85.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	71.5	71.5	74.5	78.0	—	—	—	—
	Cooling	71.0	71.0	73.5	77.0	—	—	—	—
Noise (dB) <small>(Measured at 1.5m under the center of panel in an anechoic chamber)</small>		31.5-33	28.5-30.5	22.5-26	18-18	32-33.5	29-31	22.5-26	18-18
Weight (kg)		29							
Starting current		Under 2.0A Less							

*The Air outlets noise (45° angle,1.5meters in front of the unit) is about 10dB greater than the indicated value.(at High Fan speed)

LGH-50RXs-E60

Model		LGH-50RXs							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		1.34-1.38	1.20-1.25	0.86-0.90	0.36-0.39	1.34-1.39	1.20-1.25	0.86-0.90	0.36-0.39
Power consumption (W)		285-315	263-298	187-213	79-93	285-317	263-298	187-213	79-93
Air volume	(m³/h)	500	500	380	180	500	500	380	180
	(L/s)	139	139	106	50	139	139	106	50
External static pressure	(mmHzO)	20.4	6.6	4.1	0.8	20.4	6.6	4.1	0.8
	(Pa)	200	65	40	8	200	65	40	8
Temperature exchange efficiency (%)		72.0	72.0	78.0	83.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	69.0	69.0	72.0	79.0	—	—	—	—
	Cooling	67.5	67.5	71.0	79.0	—	—	—	—
Noise (dB) <small>(Measured at 1.5m under the center of panel in an anechoic chamber)</small>		34-35.5	30-32.5	25-27.5	18-18.5	34.5-36	31-33	25.5-27.5	18-18.5
Weight (kg)		32							
Starting current		Under 2.5A Less							

*The Air outlets noise (45° angle,1.5meters in front of the unit) is about 16dB greater than the indicated value.(at High Fan speed)

LGH-65RXs-E60

Model		LGH-65RXs							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		1.9-2.0	1.8-1.9	1.2-1.3	0.6-0.6	2.0-2.0	1.8-1.9	1.2-1.3	0.6-0.6
Power consumption (W)		415-470	390-435	253-290	120-140	433-470	390-435	253-290	120-140
Air volume	(m³/h)	650	650	470	240	650	650	470	240
	(L/s)	181	181	131	67	181	181	131	67
External static pressure	(mmHzO)	18.9	6.1	3.1	0.8	18.9	6.1	3.1	0.8
	(Pa)	185	60	30	8	185	60	30	8
Temperature exchange efficiency (%)		71.0	71.0	76.0	82.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	67.5	67.5	72.5	79.0	—	—	—	—
	Cooling	67.0	67.0	72.5	79.0	—	—	—	—
Noise (dB) <small>(Measured at 1.5m under the center of panel in an anechoic chamber)</small>		35.5-37.5	33-34.5	26.5-29	19-20	36-37.5	33-35	27-30	19-20
Weight (kg)		40							
Starting current		Under 4.0A Less							

*The Air outlets noise (45° angle,1.5meters in front of the unit) is about 10dB greater than the indicated value.(at High Fan speed)

LGH-80RXs-E60

Model		LGH-80RXs							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		2.4-2.4	2.1-2.2	1.6-1.7	0.6-0.7	2.4-2.4	2.1-2.2	1.6-1.7	0.6-0.7
Power consumption (W)		498-542	456-505	350-407	130-158	505-550	456-508	350-407	130-158
Air volume	(m³/h)	800	800	660	300	800	800	660	300
	(L/s)	222	222	183	83	222	222	183	83
External static pressure	(mmHzO)	23.5	12.7	8.7	1.8	23.5	12.7	8.7	1.8
	(Pa)	230	125	85	18	230	125	85	18
Temperature exchange efficiency (%)		74.0	74.0	76.0	84.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	71.0	71.0	73.0	82.0	—	—	—	—
	Cooling	70.0	70.0	72.0	82.0	—	—	—	—
Noise (dB) <small>(Measured at 1.5m under the center of panel in an anechoic chamber)</small>		35.5-37	32.5-34.5	29-31	21-21	36-38	33-35	31-32	21-21
Weight (kg)		53							
Starting current		Under 4.5A Less							

*The Air outlets noise (45° angle,1.5meters in front of the unit) is about 16dB greater than the indicated value.(at High Fan speed)

LGH-100RX_s-E60

Model		LGH-100RX _s							
Frequency / Power source		60Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		2.9-2.9	2.7-2.8	1.6-1.7	0.8-0.9	2.9-2.9	2.8-2.8	1.6-1.7	0.8-0.9
Power consumption (W)		620-680	580-650	350-405	168-197	620-680	582-653	350-405	168-197
Air volume	(m ³ /h)	1000	1000	700	415	1000	1000	700	415
	(L/s)	278	278	194	115	278	278	194	115
External static pressure	(mmHzO)	20.4	11.7	5.6	1.9	20.4	11.7	5.6	1.9
	(Pa)	200	115	55	19	200	115	55	19
Temperature exchange efficiency (%)		77.0	77.0	81.0	87.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.5	72.5	77.0	82.0	—	—	—	—
	Cooling	73.0	73.0	77.0	82.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		36-38	34.5-36.5	28-30	21-21	37.5-39.5	36-38	29-31	21-21
Weight (kg)		59							
Starting current		Under 5.0A Less							

*The Air outlets noise (45° angle, 1.5meters in front of the unit) is about 17dB greater than the indicated value.(at High Fan speed)

LGH-150RX_s-E60

Model		LGH-150RX _s					
Frequency / Power source		60Hz / Single phase 220-240V					
Ventilation mode		LOSSNAY ventilation			By-pass ventilation		
Fan speed		Extra High	High	Low	Extra High	High	Low
Current (A)		4.6-4.8	4.1-4.2	3.2-3.4	4.7-4.8	4.1-4.3	3.2-3.4
Power consumption (W)		980-1080	895-1000	702-810	1000-1090	900-1010	702-810
Air volume	(m ³ /h)	1500	1500	1230	1500	1500	1230
	(L/s)	417	417	342	417	417	342
External static pressure	(mmHzO)	24.0	13.3	8.7	24.0	13.3	8.7
	(Pa)	235	130	85	235	130	85
Temperature exchange efficiency (%)		74.5	74.5	76.5	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.0	72.0	74.0	—	—	—
	Cooling	71.0	71.0	72.0	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		37.5-40	35-37	31-33.5	39-41	36-38.5	31.5-34
Weight (kg)		105					
Starting current		Under 9.0A Less					

*The Air outlets noise (45° angle, 1.5meters in front of the unit) is about 19dB greater than the indicated value.(at High Fan speed)

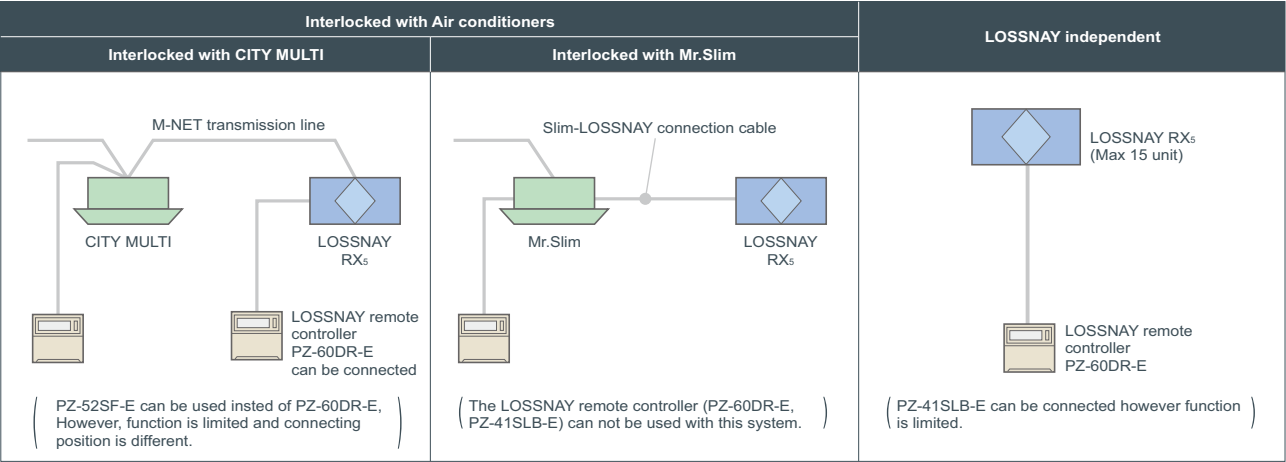
LGH-200RX_s-E60

Model		LGH-200RX _s					
Frequency / Power source		60Hz / Single phase 220-240V					
Ventilation mode		LOSSNAY ventilation			By-pass ventilation		
Fan speed		Extra High	High	Low	Extra High	High	Low
Current (A)		5.7-5.8	5.3-5.5	3.3-3.5	5.7-5.8	5.3-5.5	3.3-3.5
Power consumption (W)		1220-1355	1160-1295	715-835	1220-1355	1160-1295	715-835
Air volume	(m ³ /h)	2000	2000	1400	2000	2000	1400
	(L/s)	556	556	389	556	556	389
External static pressure	(mmHzO)	19.4	10.2	5.1	19.4	10.2	5.1
	(Pa)	190	100	50	190	100	50
Temperature exchange efficiency (%)		77.0	77.0	81.0	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.5	72.5	77.0	—	—	—
	Cooling	73.0	73.0	77.0	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		38.5-40.5	36.5-38.5	30-32.5	40.5-42	39-40.5	32-33.5
Weight (kg)		118					
Starting current		Under 10.0A Less					

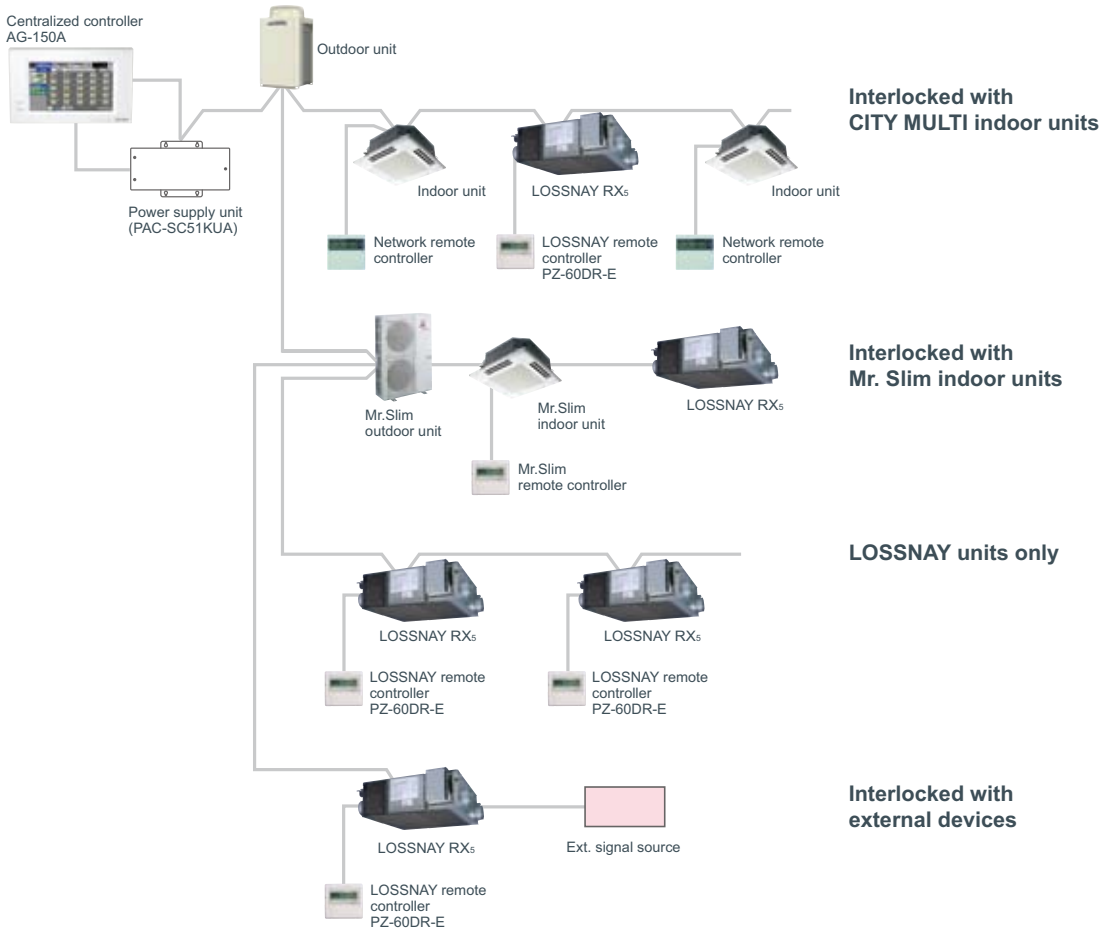
*The Air outlets noise (45° angle, 1.5meters in front of the unit) is about 20dB greater than the indicated value.(at High Fan speed)

Control

■ The New Remote Controller PZ-60DR-E enable simple control setting



■ Centralized Controller System





Outdoor unit

Heat Pump Series (S)

Heat Pump Series (Y)

S (Heat Pump) series Y (Heat Pump) series Cooling or Heating

S series

PUMY-P VHMB(-BS)

Y series

PUHY-P THM-A(-BS)
PUHY-P TSHM-A(-BS)

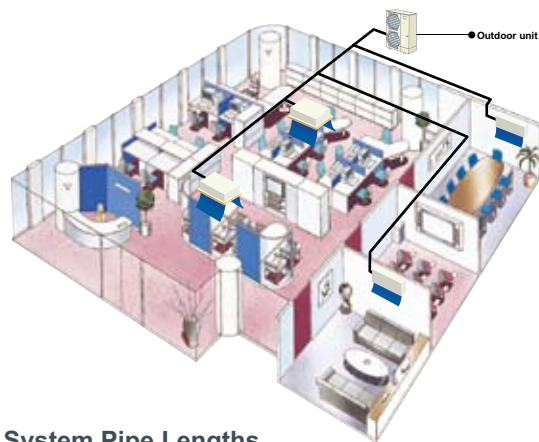


The two-pipe zoned system designed for Heat Pump Operation

The CITY MULTI S series (for small applications) and Y series (for large applications) make use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilizes R410A refrigerant and an INVERTER-driven compressor to use energy effectively.

With a wide line-up of indoor units in connection with a flexible piping system, the CITY MULTI series can be configured for all applications. Up to 12 (S series) or 42 (Y series) indoor units can be connected with up to 130% connected capacity to maximize engineer's design options. This feature allows easy air conditioning in each area with convenient individual controllers.

Small Offices (S series)



Large Offices (Y series)

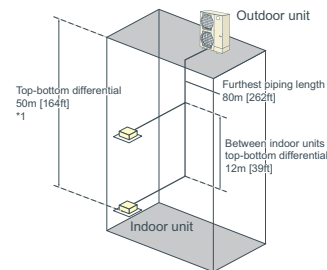


System Pipe Lengths

[4-6HP (S series)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	120 [393]
Maximum allowable length	80 [262]
Farthest indoor from first branch	30 [98]

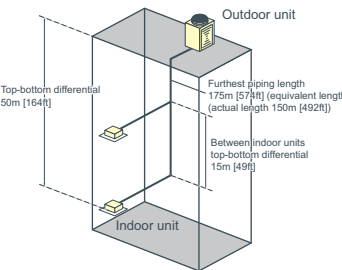
Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	20 [65]
Indoor/indoor	12 [39]



[8-50HP (Y series)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	300 [984]
Maximum allowable length	150 (175 equivalent) [492 (574)]
Farthest indoor from first branch	40 [131]

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]



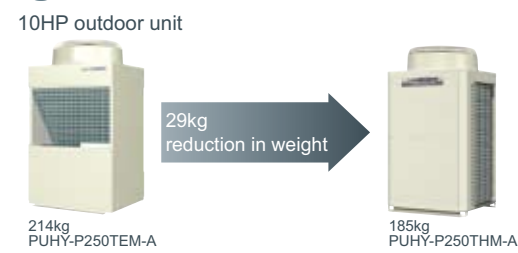
*1 When the outdoor unit is installed below the indoor unit, top-bottom differential is 20m [65ft].



Features in Y (Heat Pump) series

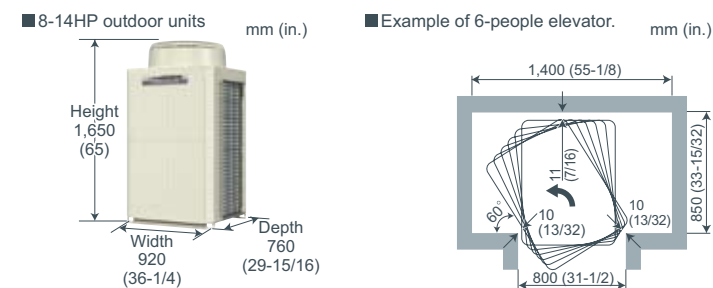
Compact Design Industry leading weight saving

The manageability of the outdoor unit has been improved due to a drastic reduction in it's weight, leading to easy transportation, installation, and reduction in withstand load.



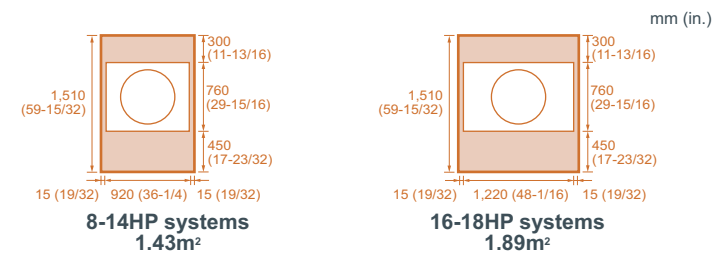
Industry leading space saving

The downsized outdoor unit can be transported through a 800mm wide door.



Effective Use of Space

The new models have a smaller foot print and service space requirement than previous models.



The unit can easily be transported even into slender buildings.

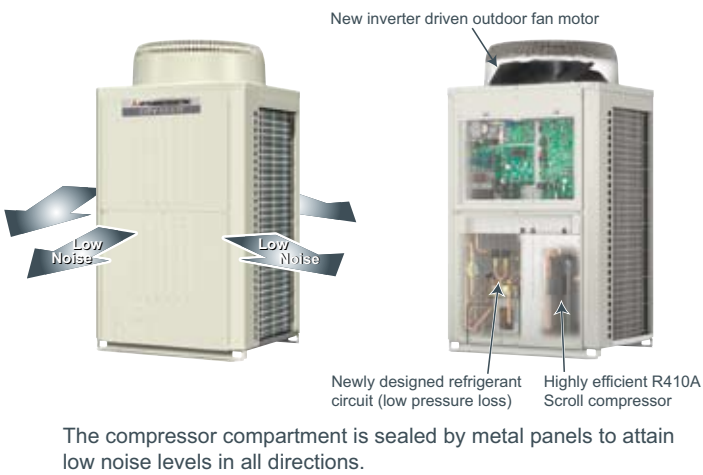
The narrow space between buildings makes it difficult to use a crane.

CITY MULTI makes it easy.

Easy to transport

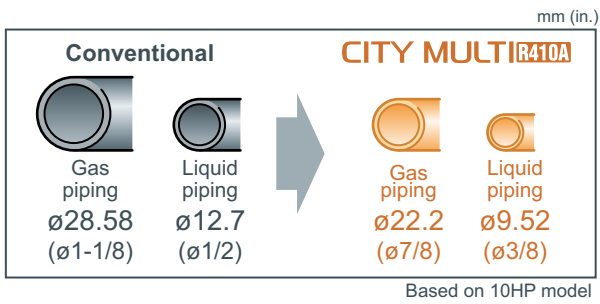
Low Noise Levels New Fan Design

CITY MULTI VRF systems led the introduction of larger single fan motors some ten years ago, achieving substantially lower noise levels over multiple designs. Continuing the development in the areas of blade shape and weight, Mitsubishi Electric have managed to achieve even higher performance and lower noise levels. To reduce noise levels further and comply with inner city residential noise regulations, all outdoor units include low noise mode. This function works by lowering the fan speed and compressor frequency proportionally with reduction in demand.



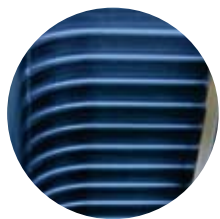
R410A Pipe Sizing

As R410A has a higher specific heat capacity than R22, the pipework is smaller. This means the pipe itself is cheaper, easier to install and less riser space is required within the building.



Blue Fin Treatment

The anti-corrosion Blue Fin treatment of the heat exchanger is especially effective in urban environments where the traffic pollutions can damage the aluminum fins reducing the capacity and life expectancy of the unit. All CITY MULTI R410A outdoor units have been treated with Blue Fin.

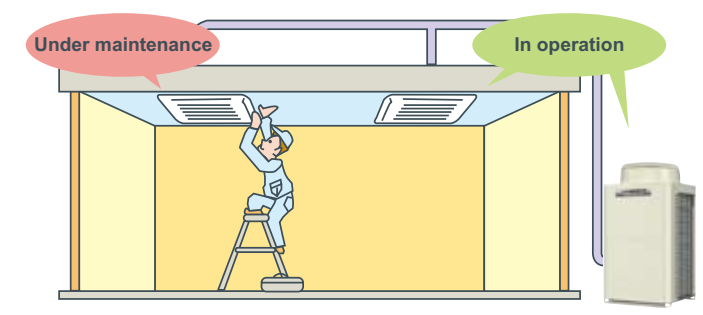


Easy Maintenance

Even when one of the indoor units in the system is under maintenance, the other indoor unit can still operate.

* Not applicable to all situations.

* Be sure to turn off the power to the indoor unit when repairing or servicing the unit.



System Check

Ensuring simple and easy maintenance, system tests are available to check wiring, sensors and the refrigerant amount.


Wide selection of outdoor units

Heat Pump Series (S)

S Series (4HP-6HP)

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PUMY-P VHMB(-BS)




Model	4HP	5HP	6HP
Model Name	PUMY-P100VHMB(-BS)	PUMY-P125VHMB(-BS)	PUMY-P140VHMB(-BS)

Heat Pump Series (Y)

Y Series (8HP-14HP)

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PUHY-P THM-A(-BS)




Model	8HP	10HP	12HP	14HP
Model Name	PUHY-P200THM-A(-BS)	PUHY-P250THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P350THM-A(-BS)

Y Series (16HP-18HP)

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PUHY-P THM-A(-BS)




Model	16HP	18HP
Model Name	PUHY-P400THM-A(-BS)	PUHY-P450THM-A(-BS)

Y Series (20HP-28HP)

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PUHY-P TSHM-A(-BS)




Model	20HP	22HP	24HP	26HP	28HP
Model Name	PUHY-P500TSHM-A(-BS)	PUHY-P550TSHM-A(-BS)	PUHY-P600TSHM-A(-BS)	PUHY-P650TSHM-A(-BS)	PUHY-P700TSHM-A(-BS)

*The PUHY-P TSHM-A series requires a Twinning kit (optional). Refer to the data book for details.

Y Series (30HP-32HP)

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PUHY-P TSHM-A(-BS)




Model	30HP	32HP
Model Name	PUHY-P750TSHM-A(-BS)	PUHY-P800TSHM-A(-BS)

Y Series (34HP-36HP)

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PUHY-P TSHM-A(-BS)



Model	34HP	36HP
Model Name	PUHY-P850TSHM-A(-BS)	PUHY-P900TSHM-A(-BS)

Y Series (38HP-46HP)

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PUHY-P TSHM-A(-BS)




Model	38HP	40HP	42HP	44HP	46HP
Model Name	PUHY-P950TSHM-A(-BS)	PUHY-P1000TSHM-A(-BS)	PUHY-P1050TSHM-A(-BS)	PUHY-P1100TSHM-A(-BS)	PUHY-P1150TSHM-A(-BS)

Y Series (48HP-50HP)

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PUHY-P TSHM-A(-BS)



Model	48HP	50HP
Model Name	PUHY-P1200TSHM-A(-BS)	PUHY-P1250TSHM-A(-BS)

OUTDOOR UNIT
S Series
PUMY-P VHMB(-BS)



► Specifications

		PUMY-P100VHMB(-BS)		PUMY-P125VHMB(-BS)		PUMY-P140VHMB(-BS)	
Power source		1-phase 220-230-240V 50Hz, 1-phase 220V 60Hz					
Cooling capacity (Nominal)	*1	kW	11.2	14.0		15.5	
	*1	BTU/h	38,200	47,800		52,900	
		Power input	kW	3.34	4.32		5.35
		Current input	A	15.4-14.8-14.1, 15.4	20.0-19.1-18.3, 20.0		24.7-23.6-22.7, 24.7
		COP (kW/kW)		3.35	3.24		2.9
Temp. range of cooling	Indoor	W.B.	15 ~ 24°C (59 ~ 75°F)				
	Outdoor	D.B.	- 5 ~ 46°C (23 ~ 115°F)				
		10 to 46°C D.B. (50 to 115°F D.B.) : in case of connecting PKFY-P15 / P20 / P25 type indoor unit.					
Heating capacity (Nominal)	*2	kW	12.5	16.0		18.0	
	*2	BTU/h	42,700	54,600		61,400	
		Power input	kW	3.66	4.33		5.58
		Current input	A	16.9-16.2-15.5, 16.9	20.0-19.1-18.3, 20.0		25.8-24.7-23.6, 25.8
		COP (kW/kW)		3.42	3.69		3.23
Temp. range of heating	Indoor temp.	D.B.	15 ~ 27°C (59 ~ 81°F)				
	Outdoor temp.	W.B.	-15 ~ 15°C (5 ~ 59°F)				
Indoor unit connectable	Total capacity	50 ~ 130% of outdoor unit capacity					
	Model/Quantity	P15 ~ P125 / 1 ~ 8		P15 ~ P140 / 1 ~ 10		P15 ~ P140 / 1 ~ 12	
Sound pressure level (measured in anechoic room)		dB<A>	49 / 51		50 / 52		51 / 53
Diameter of refrigerant pipe	Liquid (High press.)	mm(in.)	ø9.52 (ø3/8)		ø9.52 (ø3/8)		ø9.52 (ø3/8)
	Gas (Low press.)	mm(in.)	ø15.88 (ø5/8)		ø15.88 (ø5/8)		ø15.88 (ø5/8)
External finish		Galvanized steel sheet <MUNSELL 3Y 7.8/1.1>					
External dimension H X W X D		mm (in.)	1,350 X 950 X 330 (53-3/16 X 37-7/16 X 13)		1,350 X 950 X 330 (53-3/16 X 37-7/16 X 13)		1,350 X 950 X 330 (53-3/16 X 37-7/16 X 13)
Net weight		kg (lbs)	129 (284)		129 (284)		129 (284)
Heat exchanger		Salt-resistant cross fin & copper tube					
Compressor	Type	Inverter scroll hermetic comp.					
	Starting method	Inverter					
	Motor output	kW	2.2	2.9		3.3	
FAN		m³/min	100	100		100	
	Air flow rate	L/s	1,667	1,667		1,667	
		cfm	3,532	3,532		3,532	
	Type X Quantity		Propeller fan X 2		Propeller fan X 2		Propeller fan X 2
	Motor output	kW	0.06 X 2		0.06 X 2		0.06 X 2
Protection	High pressure protection		High pressure sensor, High pressure switch 4.15 MPa				
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection				
	Compressor		Discharge thermo protection, Over-current protection				
Refrigerant	Type X Original charge	R410A X 8.5kg (19 lbs)		R410A X 8.5kg (19 lbs)		R410A X 8.5kg (19 lbs)	

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)



Outdoor unit

Outdoor Unit



OUTDOOR UNIT
Y Series
PUHY-P THM-A(-BS)



► Specifications

			PUHY-P200THM-A(-BS)	PUHY-P250THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P350THM-A(-BS)
Power source			3-phase 3-wire 208-220-230V 60Hz			
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5	40.0
	*1	kcal/h	19,300	24,100	28,800	34,400
	*1	BTU/h	76,400	95,500	114,300	136,500
	Power input	kW	5.73	8.20	9.10	13.01
	Current input	A	17.6-16.7-15.9	25.2-23.9-22.8	28.0-26.5-25.3	40.1-37.9-36.2
	COP (kW/kW)		3.90	3.41	3.68	3.07
Temp. range of cooling	Indoor	W.B.	15~24°C(59~75°F)			
	Outdoor	D.B.	- 5~43°C(23~109°F)			
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5	45.0
	*2	kcal/h	21,500	27,100	32,300	38,700
	*2	BTU/h	85,300	107,500	128,000	153,500
	Power input	kW	6.05	7.96	9.40	12.12
	Current input	A	18.6-17.6-16.8	24.5-23.2-22.2	28.9-27.4-26.2	37.3-35.3-33.8
	COP (kW/kW)		4.13	3.95	3.98	3.71
Temp. range of heating	Indoor temp.	D.B.	15~27°C(59~81°F)			
	Outdoor temp.	W.B.	-20~15.5°C(-4~60°F)			
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity				
	Model/Quantity	P20~P250 / 1~13 P20~P250 / 1~16 P20~P250 / 1~16 P20~P250 / 1~20				
Sound pressure level (measured in anechoic room)	dB<A>	56 57 59 60				
Diameter of refrigerant pipe	Liquid	mm(in.)	ø9.52 (ø3/8) Flare	ø9.52 (ø3/8) Flare (ø12.7 (ø1/2) Flare, total length >=90m)	ø9.52 (ø3/8) Flare (ø12.7 (ø1/2) Flare total length>=40m)	ø12.7 (ø1/2) Flare
	Gas	mm(in.)	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed
External finish			Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>			
External dimension H X W X D	mm(in.)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)		1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)
Net weight	kg(lbs)	185 (408)		185 (408)	210 (463)	210 (463)
Heat exchanger			Salt-resistant cross fin & copper tube			
Compressor	Type	Inverter scroll hermetic compressor				
	Starting method	Inverter				
	Motor output	kW	5.4	6.7	8.2	10.1
FAN	Air flow rate	m³/min	185	185	185	185
		L/s	3,083	3,083	3,083	3,083
		cfm	6,532	6,532	6,532	6,532
	Type X Quantity	Propeller fan X 1		Propeller fan X 1	Propeller fan X 1	Propeller fan X 1
	Motor output	kW	0.35 X 1	0.35 X 1	0.35 X 1	0.35 X 1
Protection	High pressure protection	High pressure sensor, High pressure switch 4.15 MPa (601 psi)				
	Inverter circuit (COMP. / FAN)	Over-current protection, Over-heat protection				
	Compressor	Discharge thermo protection, Over-current protection				
Refrigerant	Type X Original charge	R410A X 6.5kg (14 lbs + 5 oz)	R410A X 6.5kg (14 lbs + 5 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 9.0kg (19 lbs + 13 oz)	

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)



Outdoor unit

OUTDOOR UNIT
Y Series
PUHY-P THM-A(-BS)



► Specifications

			PUHY-P400THM-A(-BS)	PUHY-P450THM-A(-BS)
Power source			3-phase 3-wire 208-220-230V 60Hz	
Cooling capacity (Nominal)	*1	kW	45.0	50.0
	*1	kcal/h	38,700	43,000
	*1	BTU/h	153,500	170,600
	Power input	kW	13.24	16.29
	Current input	A	40.8-38.6-36.9	50.2-47.5-45.4
	COP (kW/kW)		3.39	3.06
Temp. range of cooling	Indoor	W.B.	15~24°C (59~75°F)	
	Outdoor	D.B.	- 5~43°C (23~109°F)	
Heating capacity (Nominal)	*2	kW	50.0	56.0
	*2	kcal/h	43,000	48,200
	*2	BTU/h	170,600	191,100
	Power input	kW	12.37	14.55
	Current input	A	38.1-36.0-34.5	44.8-42.4-40.5
	COP (kW/kW)		4.04	3.84
Temp. range of heating	Indoor temp.	D.B.	15~27°C (59~81°F)	
	Outdoor temp.	W.B.	-20~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		
	Model/Quantity	P20~P250 / 1~20 P20~P250 / 1~20		
Sound pressure level (measured in anechoic room)	dB<A>	61 62		
Diameter of refrigerant pipe	Liquid	mm(in.)	ø12.7 (ø1/2) Flare ø15.88 (ø5/8) Flare	
	Gas	mm(in.)	ø28.58 (ø1-1/8) Brazed ø28.58 (ø1-1/8) Brazed	
External finish		Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>		
External dimension H X W X D	mm(in.)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16) 1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)		
Net weight	kg(lbs)	240 (529) 240 (529)		
Heat exchanger		Salt-resistant cross fin & copper tube		
Compressor	Type	Inverter scroll hermetic compressor		
	Starting method	Inverter		
FAN	Motor output	kW	10.5	12.0
	Air flow rate	m³/min	225	225
		L/s	3,750	3,750
		cfm	7,945	7,945
	Type X Quantity	Propeller fan X 1 Propeller fan X 1		
Motor output	kW	0.46 X 1	0.46 X 1	
Protection	High pressure protection	High pressure sensor, High pressure switch 4.15 MPa (601 psi)		
	Inverter circuit (COMP/FAN)	Over-current protection, Over-heat protection		
	Compressor	Discharge thermo protection, Over-current protection		
Refrigerant	Type X Original charge	R410A X 11.5kg (25 lbs + 6 oz) R410A X 11.5kg (25 lbs + 6 oz)		

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)



Outdoor Unit

OUTDOOR UNIT
Y Series
PUHY-P TSHM-A(-BS)

► Specifications



Set name		PUHY-P500TSHM-A(-BS)		PUHY-P550TSHM-A(-BS)		PUHY-P600TSHM-A(-BS)		
Power source		3-phase 3-wire 208-220-230V 60Hz						
Cooling capacity (Nominal)	*1	kW	56.0		63.0		69.0	
	*1	kcal/h	48,200		54,200		59,300	
	*1	BTU/h	191,100		215,000		235,400	
		Power input	kW	17.68		18.01		21.84
		Current input	A	54.5-51.5-49.3		55.5-52.5-50.2		67.3-63.6-60.9
		COP (kW/kW)	3.16		3.49		3.15	
Temp. range of cooling	Indoor	W.B.	15~24°C (59~75°F)					
	Outdoor	D.B.	- 5~43°C (23~109°F)					
Heating capacity (Nominal)	*2	kW	63.0		69.0		76.5	
	*2	kcal/h	54,200		59,300		65,800	
	*2	BTU/h	215,000		235,400		261,000	
		Power input	kW	17.12		18.48		20.35
		Current input	A	52.8-49.9-47.7		56.9-53.8-51.5		62.7-59.3-56.7
		COP (kW/kW)	3.67		3.73		3.75	
Temp. range of heating	Indoor temp.	D.B.	15~27°C (59~81°F)					
	Outdoor temp.	W.B.	-20~15.5°C (-4~60°F)					
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity						
	Model/Quantity	P20~P250 / 1~20		P20~P250 / 1~20		P20~P250 / 1~32		
Sound pressure level (measured in anechoic room)	dB<A>	60		61		62		
Diameter of refrigerant pipe	Liquid	mm(in.)	ø15.88 (ø5/8) Brazed		ø15.88 (ø5/8) Brazed		ø15.88 (ø5/8) Brazed	
	Gas	mm(in.)	ø28.58 (ø1-1/8) Brazed		ø28.58 (ø1-1/8) Brazed		ø28.58 (ø1-1/8) Brazed	
Outdoor unit 1 and Outdoor unit 2		PUHY-P250THM-A(-BS)	PUHY-P250THM-A(-BS)	PUHY-P250THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P250THM-A(-BS)	PUHY-P350THM-A(-BS)	
External finish		Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>						
External dimension H X W X D	mm(in.)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	
Net weight	kg(lbs)	185 (408)	185 (408)	185 (408)	210 (463)	185 (408)	210 (463)	
Heat exchanger		Salt-resistant cross fin & copper tube						
Compressor	Type	Inverter scroll hermetic compressor						
	Starting method	Inverter						
FAN	Motor output	kW	6.7	6.7	6.7	8.2	6.7	10.1
	Air flow rate	m³/min	185	185	185	185	185	185
		L/s	3,083	3,083	3,083	3,083	3,083	3,083
		cfm	6,532	6,532	6,532	6,532	6,532	6,532
	Type X Quantity	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	
	Motor output	kW	0.35 X 1	0.35 X 1	0.35 X 1	0.35 X 1	0.35 X 1	
Protection	High pressure protection	High pressure sensor, High pressure switch 4.15 MPa (601 psi)						
	Inverter circuit (COMP/FAN)	Over-current protection, Over-heat protection						
	Compressor	Discharge thermo protection, Over-current protection						
Refrigerant	Type X Original charge	R410A X 6.5kg (14 lbs + 5 oz)	R410A X 6.5kg (14 lbs + 5 oz)	R410A X 6.5kg (14 lbs + 5 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 6.5kg (14 lbs + 5 oz)	R410A X 9.0kg (19 lbs + 13 oz)	
Twinning kit (optional)		CMY-Y100VBK		CMY-Y100VBK		CMY-Y100VBK		

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)

Outdoor unit

OUTDOOR UNIT
Y Series
PUHY-P TSHM-A(-BS)

► Specifications



Set name		PUHY-P650TSHM-A(-BS)		PUHY-P700TSHM-A(-BS)		PUHY-P750TSHM-A(-BS)		PUHY-P800TSHM-A(-BS)			
Power source		3-phase 3-wire 208-220-230V 60Hz									
Cooling capacity (Nominal)	*1	kW	73.0	80.0	85.0	90.0					
	*1	kcal/h	62,800	68,800	73,100	77,400					
	*1	BTU/h	249,100	273,000	290,000	307,100					
		Power input	kW	22.44	26.11	26.84	29.63				
		Current input	A	69.2-65.4-62.5	80.5-76.1-72.8	82.7-78.2-74.8	91.3-86.3-82.6				
		COP (kW / kW)	3.25	3.06	3.16	3.03					
Temp. range of cooling	Indoor	W.B.	15~24°C (59~75°F)								
	Outdoor	D.B.	- 5~43°C (23~109°F)								
Heating capacity (Nominal)	*2	kW	81.5	88.0	95.0	100.0					
	*2	kcal/h	70,100	75,700	81,700	86,000					
	*2	BTU/h	278,100	300,300	324,100	341,200					
		Power input	kW	21.34	23.75	24.75	26.36				
		Current input	A	65.8-62.2-59.5	73.2-69.2-66.2	76.3-72.1-69.0	81.2-76.8-73.5				
		COP (kW/kW)	3.81	3.70	3.83	3.79					
Temp. range of heating	Indoor temp.	D.B.	15~27°C (59~81°F)								
	Outdoor temp.	W.B.	-20~15.5°C (-4~60°F)								
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity									
	Model/Quantity	P20~P250 / 1~32		P20~P250 / 1~32		P20~P250 / 1~32		P20~P250 / 1~32			
Sound pressure level (measured in anechoic room)	dB <A>	62.5		63		63.5		64			
Diameter of refrigerant pipe	Liquid	mm(in.)	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed		ø19.05 (ø3/4) Brazed		ø19.05 (ø3/4) Brazed			
	Gas	mm(in.)	ø28.58 (ø1-1/8) Brazed	ø34.93 (ø1-1/4) Brazed		ø34.93 (ø1-1/4) Brazed		ø34.93 (ø1-1/4) Brazed			
Outdoor unit 1 and Outdoor unit 2		PUHY-P300THM-A (-BS)	PUHY-P350THM-A (-BS)	PUHY-P350THM-A (-BS)	PUHY-P350THM-A (-BS)	PUHY-P350THM-A (-BS)	PUHY-P400THM-A (-BS)	PUHY-P350THM-A (-BS)	PUHY-P450THM-A (-BS)		
External finish		Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>									
Extelmal dimension H X W X D	mm(in.)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)		
Net weight	kg(lbs)	210 (463)	210 (463)	210 (463)	210 (463)	210 (463)	240 (529)	210 (463)	240 (529)		
Heat exchanger		Salt-resistant cross fin & copper tube									
Compressor	Type	Inverter scroll hermetic compressor									
	Starting method	Inverter									
FAN	Motor output	kW	8.2	10.1	10.1	10.1	10.1	10.5	10.1	12.0	
	Air flow rate	m³/min	185	185	185	185	185	225	185	225	
		L/s	3,083	3,083	3,083	3,083	3,083	3,750	3,083	3,750	
		cfm	6,532	6,532	6,532	6,532	6,532	7,945	6,532	7,945	
	Type X Quantity	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	
Protection	Motor output	kW	0.35 X 1	0.35 X 1	0.35 X 1	0.35 X 1	0.35 X 1	0.46 X 1	0.35 X 1	0.46 X 1	
	High pressure protection	High pressure sensor, High pressure switch 4.15 MPa (601 psi)									
Refrigerant	Inverter circuit (COMP/FAN)	Over-current protection, Over-heat protection									
	Compressor	Discharge thermo protection, Over-current protection									
Refrigerant	Type X Original charge	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 11.5kg (25 lbs + 6 oz)		
	Twinning kit (optional)	CMY-Y100VBK		CMY-Y100VBK		CMY-Y200VBK		CMY-Y200VBK			

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)

Outdoor Unit

OUTDOOR UNIT
Y Series
PUHY-P TSHM-A(-BS)



► Specifications

Set name			PUHY-P850TSHM-A(-BS)		PUHY-P900TSHM-A(-BS)	
Power source			3-phase 3-wire 208-220-230V 60Hz			
Cooling capacity (Nominal)	*1	kW	96.0		101.0	
	*1	kcal/h	82,600		86,900	
	*1	BTU/h	327,600		344,600	
		Power input kW	30.26		33.35	
		Current input A	93.3-88.2-84.3		102.8-97.2-93.0	
		COP (kW/kW)	3.17		3.02	
Temp. range of cooling	Indoor	W.B.	15~24°C (59~75°F)			
	Outdoor	D.B.	- 5~43°C (23~109°F)			
Heating capacity (Nominal)	*2	kW	108.0		113.0	
	*2	kcal/h	92,900		97,200	
	*2	BTUh	368,500		385,600	
		Power input kW	26.92		28.65	
		Current input A	83.0-78.4-75.0		88.3-83.5-79.9	
		COP (kW/kW)	4.01		3.94	
Temp. range of heating	Indoor temp.	D.B.	15~27°C (59~81°F)			
	Outdoor temp.	W.B.	-20~15.5°C (-4~60°F)			
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity				
	Model/Quantity	P20~P250 / 1~42		P20~P250 / 1~42		
Sound pressure level (measured in anechoic room)	dB<A>	64.5		65		
Diameter of	Liquid	mm(in.)	ø19.05 (ø3/4) Brazed		ø19.05 (ø3/4) Brazed	
refrigerant pipe	Gas	mm(in.)	ø41.28 (ø1-1/2) Brazed			
Outdoor unit 1 and Outdoor unit 2			PUHY-P400THM-A(-BS)	PUHY-P450THM-A(-BS)	PUHY-P450THM-A(-BS)	PUHY-P450THM-A(-BS)
External finish			Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>			
External dimension H X W X D	mm(in.)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)		1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)
Net weight	kg(lbs)	240 (529)		240 (529)	240 (529)	240 (529)
Heat exchanger			Salt-resistant cross fin & copper tube			
Compressor	Type	Inverter scroll hermetic compressor				
	Starting method	Inverter				
FAN	Motor output	kW	10.5	12.0	12.0	12.0
	Air flow rate	m³/min	225	225	225	225
		L/s	3,750	3,750	3,750	3,750
		cfm	7,945	7,945	7,945	7,945
	Type X Quantity	Propeller fan X 1		Propeller fan X 1	Propeller fan X 1	Propeller fan X 1
Protection	Motor output	kW	0.46 X 1	0.46 X 1	0.46 X 1	0.46 X 1
	High pressure protection	High pressure sensor, High pressure switch 4.15 MPa (601 psi)				
	Inverter circuit (COMP/FAN)	Over-current protection, Over-heat protection				
Refrigerant	Compressor	Discharge thermo protection, Over-current protection				
	Type X Original charge	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 11.5kg (25 lbs + 6 oz)	
Twinning kit (optional)			CMY-Y200VBK		CMY-Y200VBK	

OUTDOOR UNIT
Y Series
PUHY-P TSHM-A(-BS)



► Specifications

Set name			PUHY-P950TSHM-A(-BS)			PUHY-P1000TSHM-A(-BS)			PUHY-P1050TSHM-A(-BS)			PUHY-P1100TSHM-A(-BS)			PUHY-P1150TSHM-A(-BS)		
Power source			3-phase 3-wire 208-220-230V 60Hz														
Cooling capacity (Nominal)	*1	kW	108.0			113.0			118.0			124.0			130.0		
		kcal/h	92,900			97,200			101,500			106,600			111,800		
		BTU/h	368,500			385,600			402,600			423,100			443,600		
	Power input	kW	30.82			32.5			36.11			39.93			43.3		
	Current input	A	95.0-89.8-85.9			100.2-94.7-90.6			111.3-105.2-100.7			123.1-116.4-111.3			133.5-126.2-120.7		
	COP (kW/kW)	3.50			3.47			3.26			3.10			3.00			
Temp. range of cooling	Indoor	W.B.	15~24°C (59~75°F)														
	Outdoor	D.B.	- 5~43°C (23~109°F)														
Heating capacity (Nominal)	*2	kW	119.5			127.0			132.0			140.0			145.0		
		kcal/h	102,800			109,200			113,500			120,400			124,700		
		BTU/h	407,700			433,300			450,400			477,700			494,700		
	Power input	kW	29.60			31.68			33.87			36.36			38.34		
	Current input	A	91.2-86.3-82.5			97.7-92.3-88.3			104.4-98.7-94.4			112.1-106.0-101.4			118.2-111.7-106.9		
	COP (kW/kW)	4.03			4.00			3.89			3.85			3.78			
Temp. range of heating	Indoor temp.	D.B.	15~27°C (59~81°F)														
	Outdoor temp.	W.B.	-20~15.5°C (-4~60°F)														
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity															
	Model/Quantity	P20~P250 / 1~42			P20~P250 / 2~42			P20~P250 / 2~42			P20~P250 / 2~42			P20~P250 / 2~42			
Sound pressure level (measured in anechoic room)	dB<A>	64			64.5			65			65			65.5			
Diameter of refrigerant pipe	Liquid	mm(in.)	ø19.05 (ø3/4) Brazed			ø19.05 (ø3/4) Brazed			ø19.05 (ø3/4) Brazed			ø19.05 (ø3/4) Brazed			ø19.05 (ø3/4) Brazed		
	Gas	mm(in.)	ø41.28 (ø1-5/8) Brazed			ø41.28 (ø1-5/8) Brazed			ø41.28 (ø1-5/8) Brazed			ø41.28 (ø1-5/8) Brazed			ø41.28 (ø1-5/8) Brazed		
Outdoor unit 1 and Outdoor unit 2			PUHY-P250THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P400THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P400THM-A(-BS)	PUHY-P300THM-A(-BS)	PUHY-P350THM-A(-BS)	PUHY-P400THM-A(-BS)	PUHY-P350THM-A(-BS)	PUHY-P400THM-A(-BS)	PUHY-P350THM-A(-BS)	PUHY-P350THM-A(-BS)	PUHY-P450THM-A(-BS)	
External finish			Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>														
External dimension H X W X D	mm(in.)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	
		Net weight		kg(lbs)	185 (408)	210 (463)	240 (529)	210 (463)	210 (463)	240 (529)	210 (463)	210 (463)	240 (529)	210 (463)	240 (529)	210 (463)	240 (529)
		Heat exchanger			Salt-resistant cross fin & copper tube												
Compressor	Type	Inverter scroll hermetic compressor															
	Starting method	Inverter															
	Motor output	kW	6.7	8.2	10.5	8.2	8.2	10.5	8.2	10.1	10.5	10.1	10.1	10.5	10.1	10.1	12.0
FAN	Air flow rate	m³/min	185	185	225	185	185	225	185	185	225	185	185	225	185	185	225
		L/s	3,083	3,083	3,750	3,083	3,083	3,750	3,083	3,083	3,750	3,083	3,083	3,750	3,083	3,083	3,750
		cfm	6,532	6,532	7,945	6,532	6,532	7,945	6,532	6,532	7,945	6,532	6,532	7,945	6,532	6,532	7,945
	Type X Quantity	Propeller fan X 1			Propeller fan X 1			Propeller fan X 1			Propeller fan X 1			Propeller fan X 1			
Protection	Motor output	kW	0.35 X 1	0.35 X 1	0.46 X 1	0.35 X 1	0.35 X 1	0.46 X 1	0.35 X 1	0.35 X 1	0.46 X 1	0.35 X 1	0.35 X 1	0.46 X 1	0.35 X 1	0.35 X 1	0.46 X 1
	High pressure protection	High pressure sensor, High pressure switch 4.15 MPa (601 psi)															
	Inverter circuit (COMP/FAN)	Over-current protection, Over-heat protection															
Compressor	Discharge thermo protection, Over-current protection																
	Type X Original charge	R410A X 6.5kg (14 lbs+5 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 11.5kg (25 lbs+6 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 11.5kg (25 lbs+6 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 11.5kg (25 lbs+6 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 11.5kg (25 lbs+6 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 9.0kg (19 lbs+13 oz)	R410A X 11.5kg (25 lbs+6 oz)	
Twinning kit (optional)			CMY-Y300VBK			CMY-Y300VBK			CMY-Y300VBK			CMY-Y300VBK			CMY-Y300VBK		

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)

Outdoor unit

Outdoor Unit

OUTDOOR UNIT
Y Series
PUHY-P TSHM-A(-BS)



► Specifications

Set name			PUHY-P1200TSHM-A(-BS)				PUHY-P1250TSHM-A(-BS)				
Power source			3-phase 3-wire 208-220-230V 60Hz				3-phase 3-wire 208-220-230V 60Hz				
Cooling capacity (Nominal)	*1	kW	136.0				140.0				
		kcal/h	117,000				120,400				
		BTU/h	464,000				477,700				
	Power input	kW	44.25				47.04				
		Current input	A	136.4-129.0-123.4				145.0-137.1-131.2			
		COP (kW/kW)	3.07				2.97				
Temp. range of cooling	Indoor	W.B.	15~24°C (59~75°F)								
	Outdoor	D.B.	- 5~43°C (23~109°F)								
Heating capacity (Nominal)	*2	kW	150.0				156.5				
		kcal/h	129,000				134,600				
		BTU/h	511,800				534,000				
	Power input	kW	39.04				40.43				
		Current input	A	120.4-113.8-108.8				124.6-117.8-112.7			
		COP (kW/kW)	3.84				3.87				
Temp. range of heating	Indoor temp.	D.B.	15~27°C (59~81°F)								
	Outdoor temp.	W.B.	-20~15.5°C (-4~60°F)								
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity								
	Model/Quantity		P20~P250 / 2~42				P20~P250 / 2~42				
Sound pressure level (measured in anechoic room)		dB<A>	66				66				
Diameter of refrigerant pipe		Liquid	ø19.05 (ø3/4) Brazed				ø19.05 (ø3/4) Brazed				
		Gas	ø41.28 (ø1-5/8) Brazed				ø41.28 (ø1-5/8) Brazed				
Outdoor unit 1 and Outdoor unit 2			PUHY-P350THM-A(-BS)	PUHY-P400THM-A(-BS)	PUHY-P450THM-A(-BS)	PUHY-P350THM-A(-BS)	PUHY-P450THM-A(-BS)	PUHY-P450THM-A(-BS)			
External finish			Pre-coated galvanized steel sheet <MUNSELL 5Y 8/1>								
External dimension H X W X D		mm (in.)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 920 X 760 (65 X 36-1/4 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)	1,650 X 1,220 X 760 (65 X 48-1/16 X 29-15/16)			
Net weight		kg (lbs)	210 (463)	240 (529)	240 (529)	210 (463)	240 (529)	240 (529)			
Heat exchanger			Salt-resistant cross fin & copper tube								
Compressor	Type		Inverter scroll hermetic compressor								
	Starting method		Inverter								
	Motor output	kW	10.1	10.5	12.0	10.1	12.0	12.0			
FAN	Air flow rate	m³/min	185	225	225	185	225	225			
		L/s	3,083	3,750	3,750	3,083	3,750	3,750			
		cfm	6,532	7,945	7,945	6,532	7,945	7,945			
	Type X Quantity		Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1	Propeller fan X 1			
	Motor output	kW	0.35 X 1	0.46 X 1	0.46 X 1	0.35 X 1	0.46 X 1	0.46 X 1			
Protection	High pressure protection		High pressure sensor, High pressure switch 4.15 MPa (601 psi)								
	Inverter circuit (COMP/FAN)		Over-current protection, Over-heat protection								
	Compressor		Discharge thermo protection, Over-current protection								
Refrigerant	Type X Original charge		R410A X 9.0kg (19 lbs + 13 oz)	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 9.0kg (19 lbs + 13 oz)	R410A X 11.5kg (25 lbs + 6 oz)	R410A X 11.5kg (25 lbs + 6 oz)			
Twinning kit (optional)			CMY-Y300VBK				CMY-Y300VBK				

Notes:

- *1 Nominal cooling conditions
Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)
- *2 Nominal heating conditions
Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB
Pipe length 7.5 m (24-9/16 ft), Level difference 0 m (0 ft)



Outdoor unit



Optional parts

OPTIONAL PARTS FOR INDOOR UNITS

>>4-way cassette type (PLFY-VBM)

Description	Model	Applicable capacity
Decoration panel	SLP-2AA	—
	PLP-6BA	P32, P40, P50, P63, P80, P100, P125
Automatic Filter Elevation Panel	PLP-6BAJ	P32, P40, P50, P63, P80, P100, P125
Multi-functional casement	PAC-SH53TM-E	P32, P40, P50, P63, P80, P100, P125
High-efficiency filter element	PAC-SH59KF-E	P32, P40, P50, P63, P80, P100, P125
Wireless signal receiver	PAR-SA9FA-E	P32, P40, P50, P63, P80, P100, P125
Space panel	PAC-SH48AS-E	P32, P40, P50, P63, P80, P100, P125
"I-see" sensor	PAC-SA1ME-E	P32, P40, P50, P63, P80, P100, P125
Duct flange for fresh air intake	PAC-SH650F-E	P32, P40, P50, P63, P80, P100, P125
Shutter plate	PAC-SH51SP-E	P32, P40, P50, P63, P80, P100, P125

>>2-way cassette type (PLFY-VLMD)

Description	Model	Applicable capacity
		PLFY-VLMD-B
Decoration panel	CMP-40VLW-C	P20, P25, P32, P40
	CMP-63VLW-C	P50, P63
	CMP-100VLW-C	P80, P100
	CMP-125VLW-C	P125
OA duct flange	PAC-KH11OF	P20, P25, P32, P40, P50, P63, P80, P100

>>1-way cassette type(PMFY-VBM)

Description	Model	Applicable capacity
Decoration panel	PMP-40BM	P20, P25, P32, P40

>>Ceiling concealed type (PEFY-VMH)

Description	Model	Applicable capacity	Remarks
		PEFY-VMH	
Drain pump	PAC-KE04DM-F	P40~P250	—
Long life filter	PAC-KE86LAF	P40, P50, P63	
	PAC-KE88LAF	P71, P80	
	PAC-KE89LAF	P100, P125, P140	
Filter box	PAC-KE85LAF	P200, P250	Necessary when long life filter is used
	PAC-KE63TB-F	P40, P50, P63	
	PAC-KE80TB-F	P71, P80	
	PAC-KE140TB-F	P100, P125, P140	
	PAC-KE250TB-F	P200, P250	

>>Ceiling concealed type (PEFY-VMA(L))

Description	Model	Applicable capacity
Filter box	PAC-KE91TB-E	P20, P25, P32
	PAC-KE92TB-E	P40, P50
	PAC-KE93TB-E	P63, P71, P80
	PAC-KE94TB-E	P100, P125
	PAC-KE95TB-E	P140

>>Fresh air intake type (PEFY-VMH-E-F)

Description	Model	Applicable capacity
Long life filter	PAC-KE88LAF	P80
	PAC-KE89LAF	P140
	PAC-KE85LAF	P200, P250
Filter box	PAC-KE80TB-F	P80
	PAC-KE140TB-F	P140
	PAC-KE250TB-F	P200, P250
Drain pump	PAC-KE04DM-F	P80, P140, P200, P250

>>Ceiling suspended type (PCFY-VKM)

Description	Model	Applicable capacity
Drain pump kit	PAC-SH83DM-E	P40
	PAC-SH84DM-E	P63, 100, 125
High efficiency filter	PAC-SH88KF-E	P40
	PAC-SH89KF-E	P63
	PAC-SH90KF-E	P100,125
Wireless remote controller kit	PAR-SL94B-E	P40, 63, 100, 125

>>Ceiling concealed type (PEFY-VMS1 (L))

Description	Model	Applicable capacity	
Drain pump	PAC-KE07DM-E	P15, 20, 25, 32, 40, 50, 63	*For PEFY-VMS1L only
Control box replace kit	PAC-KE70HS-E	P15, 20, 25, 32, 40, 50, 63	

>>Wall mounted type (PKFY-VBM/VHM/VKM)

Description	Model	Applicable capacity
External LEV Box	PAC-SG95LE-E	P15, 20, 25
Drain pump kit	PAC-SH75DM-E	P32, 40, 50
	PAC-SH94DM-E	P63, 100



OPTIONAL PARTS FOR OUTDOOR UNITS

>>For PUMY-P100 ,P125 ,P140 VHMB

Description	Model
Branch Pipe (2 Branch)	CMY-Y62-G-E
Header	CMY-Y64-G-E
Header	CMY-Y68-G-E
Drain Socket	PAC-SG61DS-E
Centralized Drain Pan	PAC-SG64DP-E
Port Connector (ø9.52 → ø12.7)	PAC-SG73RJ-E
Port Connector (ø15.88 → ø19.05)	PAC-SG75RJ-E
Air Protect Guide (2 pcs required)	PAC-SH63AG-E

>>For PUHY series

Description	Model	Remarks
High static pressure motor	PAC-KBU06MT-F	~ 60Pa
Twinning kit	CMY-Y100VBK	For PUHY-P500~P700TSHM
	CMY-Y200VBK	For PUHY-P750~P900TSHM
	CMY-Y300VBK	For PUHY-P950~P1250TSHM
Branch pipe (Joint)	CMY-Y102S-G	200 or below
	CMY-Y102L-G2	201-400
	CMY-Y202-G2	401-650
		The 1st branch of P450~P650
	CMY-Y302-G2	651 or above
		The 1st branch of P700~P1250
Branch pipe (Header)	CMY-Y104-G	For 4 branches
	CMY-Y108-G	For 8 branches
	CMY-Y1010-G	For 10 branches

Note : Indoor unit capacities: the capacity of an indoor unit is the same as the number used for its type identification.

OPTIONAL PARTS FOR CONTROL

Model	Description
PAC-SE41TS-E	Remote Sensor for A/J/K/M-Net Control
PAC-SE55RA-E	Remote ON/OFF adaptor for Indoor Unit
PAC-SA88HA-EP	Remote Display Adaptor for Indoor Unit
PAC-SA89TA-EP	Timer Adaptor for remote controller
PAC-SC37SA-E	Output signal connector
PAC-SC36NA-E	Input signal connector
PAC-SF46EPA	Transmission booster
LMAPO2	Air conditioner interface
PAC-YG11CDA	Electric amount count software
PAC-YG31CDA	BAC net®interface
BAC-HD150	BAC net® and M-NET adapter

Model	Description
PAC-YG10HA	External input/output adapter for AG-150A
PAC-YG50ECA	Expansion controller for AG-150A
PAC-SC51KUA	Power supply unit for AG-150A / GB-50ADA
PAC-YG81TB	Mounting attachment B type for AG-150A wall-mount installations
PAC-YG83UTB	Electric box for AG-150A wall-embed installations
PAC-YG85KTB	Mounting attachment A type for AG-150A/PAC-SC51KUA wall-mount installations
PAC-YG71CBL	Black surface cover for AG-150A

Maintaining equipments

Maintenance cycle [Note that maintenance cycle does not mean guarantee period.]

The following tables are applicable when using equipment under the conditions below.

- Normal use without frequent START/STOPs (The number of START/STOPs is assumed to be less than 6 times per hour in normal use.)
- Operating hours are assumed to be 10 hours per day/2500 hours per year.

Under the following conditions, equipment may not be able to be used at all, or the maintenance cycle and replacement cycle of equipment may need to be shortened.

- When using equipment in high temperature and humidity or in rapid changes in temperature and humidity
- When using equipment in a big electric change of power voltage, frequency, and waveform distortion (They cannot be used outside of acceptable range.)
- When using equipment installed in a place where there is a lot of vibration
- When using equipment in the air with hazardous gas or oil mist as well as dust, salinity, and sulfur dioxide/hydrogen sulfide
- When using equipment with frequent START/STOP or long operating hours

Table 1. Maintenance cycle

Major components	Checking cycle	Maintenance cycle	Major components	Checking cycle	Maintenance cycle
Compressor	1 year	20,000 hours	Expansion valve	1 year	20,000 hours
Motor (Fan, Louver, drain pump)		20,000 hours	Valve (solenoid valve, four-way valve)		20,000 hours
Bearing		15,000 hours	Sensor (thermistor, presser sensor)		5 years
Electric board		25,000 hours	Drain pan		8 years
Heat exchanger		5 years			

Note1 This table shows major components. Refer to the maintenance contract for details.
Note2 This maintenance cycle shows a period in which products are expected to require no maintenance. Use this cycle for planning maintenance (budgeting the maintenance expense etc.) Checking/ Maintenance cycle may be shorter than the one on this table depending on the contents of maintenance check contract.

- Sudden unpredictable accident may occur even if check-up is performed.

Replacement cycle of consumable components
[Note that replacement cycle does not mean guarantee period.]

Table 2. Replacement cycle

Major components	Checking cycle	Replacement cycle
Long-life filter	1 year	5 years
High-performance filter		1 year
Fan belt		5,000 hours
Smoothing capacitor		10 years
Fuse		10 years
Crank case heater		8 years

Note1 This table shows major components. Refer to the maintenance contract for details.
Note2 This replacement cycle shows a period in which products are expected to require no replacements. Use this cycle for planning maintenance (budgeting expenses for replacing equipments etc.)



FM33568 / ISO 9001;2008

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

ISO Authorization System

The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



EC97J1227

051

The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).

 **MITSUBISHI ELECTRIC CORPORATION**

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